SESSIONAL PAPERS.

VOL. XXXV.—PART VIII.

FIRST SESSION, TENTH LEGISLATURE

OF THE

PROVINCE OF ONTARIO.

SESSION 1903.

TORONTO:
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1903.

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No. 3.. Report of the Commissioner of Crown Lands for the year 1902. Presented to the Legislature, 23rd March, 1903. *Printed.*

No. 4.. Report of the Proceedings of the Inter-Provincial Conference held at the City of Quebec from the 18th to the 20th December, inclusive. Presented to the Legislature, 21st March, 1903. *Printed.*

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No. 8.. Report of the Inspectors of Factories for the year 1902. Presented to the Legislature, 3rd June, 1903. *Printed.*

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No. 17.. Report of the Fruit Experiment Stations of Ontario for the year 1902. Presented to the Legislature, 26th May, 1903. *Printed.*

No. 18.. Report of the Inspector of Fumigation Appliances for the year 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 19.. Report of the Entomological Society for the year 1902. Presented to the Legislature, 21st April, 1903. *Printed.*

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No. 30.. Report of the Ontario Game Commission for the year 1902 Presented to the Legislature, 23rd March, 1903. *Printed.*

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No. 67.. Return to an Order of the House of the twenty-third day of April, 1903, for a Return showing account in detail of timber dues paid or owing to the Province in respect of timber cut upon Crown lands in the Townships of Elzevir and Grimsthorpe in the season of 1901-2. Also, shewing amount due to the said municipalities during same period. Presented to the Legislature, 30th March, 1903. Mr. *Pearce. Not printed.*

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No. 72.. Return to an Order of the House of the fourth day of May, 1903, for a Return shewing the number of young Boys and Girls committed to the County Gaols of the Province during the years 1900, 1901 and 1902 respectively. Presented to the Legislature, 11th May, 1903. Mr. *Hoyle. Not printed.*

No. 73.. Return to an Address of the eighth day of May, 1903, to His Honour the Lieutenant-Governor praying that he will cause to be laid before this House a Return of copies of all Awards made by the Arbitrators between the Dominion and the Provinces, since the date of the last Return. Also, a statement of the Account between Ontario and the Dominion from 31st December, 1892, to 31st December, 1902, as settled by the Counsel for the Province and the Dominion. Together with copies of correspondence between the Minister of Finance of the Dominion and the Provincial Treasurer of Ontario. Presented to the Legislature, 14th May, 1903. Mr. *Matheson. Printed.*

No. 74.. Return to an Order of the House of the Eleventh day of May, 1903, for a Return of copies of all correspondence, agreements and other documents, relating to any application, or agreement between the Government and the Toronto and Niagara Power Company, or any other person, or persons, since the first day of January, 1902, for a grant, or proposed grant of water power from the Niagara or Welland Rivers, for the purpose of generating pneumatic, or other power. Presented to the Legislature, 21st May, 1903. Mr. *Foy. Not printed.*

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No. 76.. Return to an Order of the House of the Twentieth day of May, 1903, for a Return of copies of all correspondence, papers and documents relating in any way to the appointment of one John McMaster, in or about the month of May, 1902, as overseer of work to be performed on Markstay and Warren Road in Algoma or Nipissing, and to the work done, security given and money advanced or expended in connection therewith. Presented to the Legislature, 28th May, 1903. Mr. *Nesbitt. Not printed.*

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No. 80.. Return to an Order of the House of the fourth day of June, 1903, for a Return of copies of all correspondence between the Attorney-General or any other Member of the Government and the County Council of Frontenac, with reference to a Resolution of the County Council asking for the dismissal of the Sheriff of the County; together with copies of all correspondence between the Government, or any Member thereof, and James Dunkin Thompson, Registrar of the County of Frontenac, and Thomas Dawson, Sheriff of the said County, as to the appointment of a Returning Officer for the County, at the last Provincial Election. Presented to the Legislature, 16th June, 1903. Mr. *Gallagher. Not printed.*

No. 81.. Return to an Order of the House of the twenty-eighth day of May, 1903, for a Return of Copies of all correspondence between any Member of the Government and James A. Browning of Bellingham, Ontario, relating to the imprisonment of the latter, on a charge of obtaining property on false pretences. Presented to the Legislature, 26th June, 1903. Mr. *Smyth. Not printed.*

TWENTY-FIRST ANNUAL REPORT

OF THE

PROVINCIAL BOARD OF HEALTH

OF ONTARIO

BEING FOR THE YEAR

1902.

PRINTED BY ORDER OF

THE LEGISLATIVE ASSEMBLY OF ONTARIO.

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TWENTY-FIRST ANNUAL REPORT

OF THE

PROVINCIAL BOARD OF HEALTH.

To His Honour the Honourable WILLIAM MORTIMER CLARK, Esq., *Lieutenant-Governor of Ontario.*

MAY IT PLEASE YOUR HONOUR:

The Provincial Board of Health respectfully begs to present, for approval, its Twenty-first Annual Report of work done under the provisions of Chapter 248, R.S.O., 1897.

The Board takes pleasure to draw Your Honour's attention to the high state of the general health of the Province in the matter of contagious diseases, by reference to the study of these, which appears in Chapter II of the Secretary's Report, page 19.

It is there pointed out that notwithstanding the fact that in 1902 the smallpox outbreak, which had appeared in epidemic form in 1901, had continued, yet the total deaths reported from 675 municipalities as due to smallpox, scarlet fever, diphtheria and typhoid fever were only 952. That this is relatively a very satisfactory showing may be gathered by a reference to page 20. From this it appears that the mortality per thousand of 0.43, was lower than in any other country in the list, including Great Britain, in which Scotland was lowest, with a mortality of 0.47 per 1,000.

The variability in the type of different diseases is, however, a matter affecting not alone the mortality rate, but the thoroughness of the measures adopted for dealing with contagious diseases. Thus, as referred to in Chapter II as well as in various reports of the Secretary and Medical Inspector, the mildness of smallpox has made it much more difficult to obtain effective local action than if the type of disease were more virulent. Similarly the need for more stringent measures for dealing with scarlet fever is illustrated by the largely increased deaths, due to an increased virulence in the latter half of 1902. A new set of Scarlet Fever Regulations came into force by Order-in-Council on March 5th, 1903, which it is hoped will assist in limiting this, one of the most fatal diseases of childhood.

The low prevalence of typhoid fever, which is so closely associated with the larger municipal works of our towns and cities, has been a good index of the steady development of waterworks systems and of sewerage systems throughout the Province. The town of Southampton has during the year established a system of waterworks, while Listowel has passed a by-law for sewerage works, and Woodstock and Stratford have formally applied to the Board for permission to extend their works.

The rapid growth of the urban population of the Province, through the development of manufacturing industries in the several cities and towns, is forcing the questions, not only of waterworks but of sewage disposal, into great prominence. Fortunately for the welfare of the public the preliminary steps necessary to their establishment demand that the source of the proposed water supply of any town and the method of disposal of the sewage of any place be submitted to the Provincial Board of Health for approval. Thus a water supply of indifferent quality, or one in danger of pollution, is avoided where at all possible; while the protection of the interests of one town against any selfish action on the part of another town higher on a stream, the matter of sewage disposal is assured.

The problem of sewage purification has thus been prominently forced upon the municipalities, and, as will be seen by the Special Report on Sewage Disposal made by Dr. J. A. Amyot, page 33, the Board has during the year gone quite fully into the experimental side of the question. The facts therein set forth will be of much value to Municipal Councils and Boards of Health, as serving to indicate what may be expected of septic tanks and the several other methods of sewage disposal.

The scientific and practical aspects of vaccination are discussed in a paper by the Secretary on page 132, in which the relations of the public to compulsory vaccination are set forth. Similarly the social phase of isolation and vaccination in smallpox is set forth on page 128, and the claims of the public who have not been affected and are protected by vaccination are upheld.

Reports of the Conferences on Tuberculosis in Ottawa in April and New York in June, will be found on pages 100 and 103, and the importance of developing practical methods for dealing with this most serious health problem is in these fully illustrated. By nothing probably is the relative social and ethical status of any community measured more accurately than by the degree of intelligent interest shown in this work; and it would appear from these reports that there is great need for a practical campaign of education being instituted in Ontario.

Other reports, such as the sanitation of barber shops, will be found in Part II, dealing with different phases of public health work. Not the least interesting are the annual reports of the several cities of the Province found in Part III. There is nothing which measures so accurately the advances of public health during the past twenty years as the attitude of the medical officers of

local boards of health to the various problems of public health work; and it may be said that by comparison the work done in Ontario cities stands high in the scale, as illustrated on page 19, by the work done in limiting the contagious diseases. The direction by which more comprehensive and scientific work in the counties outside of the larger cities may be carried on, is illustrated in the several quarterly reports of the Secretary, indicating that the townships, villages and towns should be organized into larger health units, so that a single officer's time could wholly be devoted to public health work.

The actual position of public health work as an exact science, is set forth with much clearness in Chapter I, page 8 of the report of the Secretary, and indicates how remarkable has been the evolution of the science of public health during the past quarter of a century.

All of which is respectfully submitted,

H. E. VAUX,
Chairman.

PART I.

REPORT OF THE SECRETARY.

CHAPTER I.

THE EVOLUTION OF PUBLIC HEALTH AS A DEPARTMENT OF GOVERNMENT.

The year 1902 completes twenty-one years of Public Health work under the Act appointing the Provincial Board of Health, and this being the number of years at which a man is supposed to have arrived at the age of maturity, and in this Province may exercise his franchise, it would seem proper that a brief study should be made of the progress which has taken place in the evolution of Public Health work, not only as a branch of State and municipal work, but as an exact science, taking its place in the schools of learning as a part of the curriculum of education and general culture.

In the annual report of the Board for 1891, reference was made to the condition of Medicine in the early days of Ontario, when it was pointed out that as early as 1832 a medical examining and licensing board existed in the Province,* but there is no evidence to show or lead us to believe that any teaching of sanitary science was a part of the requirements of physicians. That opinions as to the relations of insanitary conditions to the spread of disease were then strongly held, may, however, be gathered from a report made in 1832 by the Legislature of the York (Toronto) Hospital and Dispensary. It states: "The great increase in the population of this town and its vicinity, and the misery and wretchedness of the lower classes of emigrants, could not fail to disseminate amongst them disease in its various forms. Typhus fever, in its most malignant form, raged to a most alarming extent: many of the fatal cases above reported upon have been of this malady, brought into hospitals from the steamboats, or from the confined and filthy parts of the town." How much of the disease referred to was typhus, and how much typhoid, cannot be known; since, though Bretonneau, in 1818, had already distinguished the specific intestinal lesions of certain cases of this fever, it was not till after the work of Sir Wm. Jenner, in 1849, that the final distinction between these two diseases was recognized. Enteric fever having become recognized as a specific disease, its infectious nature and its propagation by the faecal discharges, led many physicians, as Budd, to look upon it as due to a specific agent. It was not, however, until within the period of this Board's existence that the discovery, by Eberth, in 1880, of its bacillus, has given us any certain knowledge of the specific character of the disease.

As was natural, the preventable character of typhoid was not even thought of, as regards its connection with a polluted water supply, at that time, nor, indeed, for many years later. That the medical profession, who were licensed to practice physic, surgery, and midwifery, stood in a high

position in those early days may readily be gathered from the minutes of meetings of the Medical Board, as well as from reports in the newspapers of those early days. In 1832, Sir John Colborne, the Governor, had shown a proper sense of his duties when in the approach of cholera on the St. Lawrence, he issued, on June 20th, the following circular to the Chairmen of the Quarter Sessions, Boards of Magistrates, in the several districts of the Province:

Sir: The contagious disease, which has extended its ravages to Lower Canada, having appeared at Prescott in this Province, it becomes necessary to take immediate precautionary measures for arresting its progress as far as human means can avail. I am, therefore, to acquaint you by command of the Lieutenant Governor, that His Excellency, in the full confidence that the Legislature will sanction the adoption of any measures which the present exigency may require, requests that you will convene the magistrates of the district, and with their aid form a Board of Health.

(Signed) E. McMahon.

This prompt action in 1832 was followed in 1833 by legislative action, when an "Act to establish Boards of Health" was passed on 13th February.

The epidemic of cholera, recurring in 1834, maintained an activity in public health matters, which, however, became quiescent until 1849, when cholera appeared as an epidemic of great virulence. The old Act of 1833 had seemed inadequate, and the Parliament of Canada (Upper and Lower Canada), owing to the presence of cholera in England, in the autumn of 1848, from Hamburg, passed an Act in April, 1849, for "the establishment of a Central Board of Health," as an amendment to the Act of 5 William IV.

This Act provided for such a Board being created by a commission of the Governor. A report of a meeting of the Toronto City Council in the Globe of 21st June, 1849, illustrates the situation. A heated discussion is stated to have taken place, aldermen protesting that the Act required them to do work according to the instructions of the Central Board, and then bear the expenses besides. The Central Board issued its first regulations from its office, in Montreal, dated June 14th, 1849. The epidemic of that year having died out, the Central Board of Health seems to have passed out of commission till 1866, when cholera, again threatening, became the occasion for new regulations being gazetted on May 3rd. In matters of quarantine, laws had existed as early as 1794 regarding the inspection of vessels coming from foreign ports; but excepting these, nothing more than has been indicated existed except the powers of municipalities to appoint committees of health. Such committees were provided for, and did some routine work in the way of abating nuisances, and dealing with contagious diseases as they appeared.

Speaking generally, it may be said that the spasmodic character of such public health work was due to the inexact knowledge of the nature of contagious diseases. It was known that smallpox was contagious, but, on the other hand, cholera was looked upon as due to some mysterious influence, wholly independent of human agency, and hence non-preventable. As late as 1849 the following was written: "It is no doubt true that when one person takes the cholera another may take it. The atmospheric conditions which produce the one may produce the other. But as to any direct communicability of air from one person to another, it is no more likely in the case of cholera than in the case of a broken leg."

Such was then the condition of public, and largely of scientific, opinion until 1881, when the agitation began for the organization of some permanent central health organization in Ontario. In 1877, after the devastating scourge of yellow fever in the United States, a National Board of Health was formed, which undertook the study of disease, and exercised for the few years of its existence an important advisory influence in the affected States of the

South. Several States, as Massachusetts, New York, and Michigan, had already organized State Boards of Health, which were doing an important work in urging the establishment of Local Boards, and in drawing up rules, which in their advisory capacity they urged municipal authorities to adopt. What was wanted everywhere was scientific authority for the measures they advised; and science was beginning to supply such.

In 1876, Pasteur had determined the true nature of the contagion of anthrax, and had propounded the axiom "*omne virum e vivo*." Robert Boyle, the great English physicist, had said two centuries before, "that he who could probe to the bottom the nature of ferments and fermentation would probably be more capable than anyone of explaining certain morbid phenomena." Pasteur had deeply pondered these words, and had realized their truth in his studies on the vinegar and other fermentations; but as regards such studies in relation to diseases, it is curious to note that when in 1873 he was nominated as a candidate for a vacancy in the Free Associates of the Academy of Medicine, he was elected only by one vote, so little were his discoveries comprehended by the foremost physicians of the time in their relation to disease. Up to this time all outside the clinic was looked upon as useless, and viewed with indifference or hostility. Claude Bernard had felt it in the remark that "Physiology can be of no practical use in medicine: it is but a *science de luxe* which could well be dispensed with," and he made the mournful statement, "No doubt we shall not live to see the blossoming out of scientific medicine; but such is the fate of humanity; those that sow in the field of science are not destined to reap the fruit of their labors." Remembering these words, it becomes a source of supreme satisfaction to have been privileged to live during the succeeding quarter of a century, which has seen this prophecy in so large a measure fulfilled. When Villemin, in 1869, after years of experimental research, announced that tuberculosis is a disease which reproduces itself, he was treated almost as a perturber of medical order. Nevertheless, he pointed to the way, and Robert Koch, in 1882, successfully climbed the summit of the Mount of Difficulty.

Davaine, who had already discovered the rod-shaped bodies in the blood of animals affected with anthrax, had called them bacteria, and who said: "They have a place in the classification of living beings," was even in 1873 being attacked for his opinions. It was as late as 1873 when Alphonse Guerin, who was a surgeon during the Commune, and had been led by Pasteur's studies to suspect that the frightful mortality after operations was due to germs, brought Pasteur to the Hotel Dieu, Paris, to witness some of the results of his simple dressings of wounds with layers of cotton wool; and, in 1874, that Pasteur received from Lister, at Edinburgh, a pamphlet and a letter, containing the request that he would read the researches on lactic fermentation, at the same time complimenting Pasteur on his brilliant researches, which, he said, "demonstrated to me the truth of the germ theory of putrefaction."

In 1874 Pasteur illustrated in a sitting of the Academie des Sciences the details which he, a chemist, considered necessary to get rid of the germs that might get into a wound, and in pointing out how cleanliness was the basis of all surgical details, explained, "in this way the advantage accruing to hygiene in hospitals and elsewhere from infinite precautions of cleanliness and the destroying of infectious germs."

In England, Dr. Bastian, of University College, attacked by experiments of much seeming cleverness, Pasteur's theories, and endeavored to prove the possibility of spontaneous generation. Prof. Tyndall, seeing the retroactive influence the publication of such experiments was having,

took up the study along the lines of the physics of light to refute these theories, and in a letter to Pasteur said: "For the first time in the history of science we have the right to cherish the sure and certain hope that, as regards epidemic diseases, Medicine will soon be delivered from quackery, and placed on a real scientific basis. When that day arrives, humanity, in my opinion, will know how to recognize that it is to you that will be due the largest share of her gratitude."

Pasteur's greatest triumph in the domain of microbic diseases, as Sedillot characterized them, affecting man and animals, was, however, in 1877. Experimenting on the bacteria, he found by his admirable process of culture, outside organism, that the rods which exist in the blood, and for which he has preserved the name bacteridia, given them by Davaine, are living beings, capable of being indefinitely reproduced in appropriate liquids, after the manner of a plant multiplied by successive cuttings. "The bacteridium does not reproduce itself only under the filamentous form, but also through spores or germs, after the manner of many plants, which present two modes of reproduction: by cutting and by seeds."

Closely following the proof of the cause, and the possibility of reproducing anthrax by inoculating the cultivated bacteria into sheep and cattle, Pasteur made the remarkable discovery that while hens, owing to their normal temperature being several degrees higher that that of sheep, would not under ordinary conditions take anthrax, yet on reducing their temperature during inoculation by chilling them in a bath of water, they sickened and died, and the bacteria were found in their blood, as in that of other animals. He equally proved the dependence of the germ upon temperature, by subsequently raising the temperature of a sick hen, when the fowl recovered, and the germs disappeard from its blood within a few hours. His next discoveries were in chicken cholera, which similarly proved to be a microbic disease, while his experiments discovered the attenuating influence upon the bacteria of oxygen in the cultures.

Following this up, he carried his observations into the wards of the hospitals, and interested himself in discovering the cause of puerperal fever. In 1878 he discovered the chain-like streptococcus in the blood of patients sick with this disease, and announced it before the Academie de Medicine.

It was, however, in 1882 that Pasteur accomplished his crowning glory of accepting the challenge of the Melun Agricultural Society to prove his theory of immunization against anthrax by proceeding to the farm of Pouilly le Fort, and, on May 5th, in the presence of a crowd of farmers, veterinarians and physicians, vaccinated 25 sheep out of a flock of 50 with his attenuated virus or vaccine; again on the 17th he inoculated a stronger virus, and finally on May 31 inoculated the normal virus into the 25 immunized and the 25 others. On June 8th all the latter were dead, and all the first 25, save one, were well.

The fame of this crucial experiment became universal. Public journals could grasp its broad and practical significance, and at the International Congress, in London, in 1882, Pasteur was the unchallenged hero of the hour. The French Government had already bestowed on him "The Grand Cross of the Legion of Honour."

In a special lecture, delivered at the request of the President, Sir James Paget, Pasteur said: "In a fortnight we vaccinated in the Departments surrounding Paris nearly 20,000 sheep, and a great many oxen, cows, and horses. . . . Allow me not to conclude without telling you of the great joy I feel in thinking that it is as a member of the International Medical Congress, sitting in London, that I have made known to you the vaccination of a disease

more terrible, perhaps, for domestic animals than is smallpox for man. I have given to the word vaccination an extension, which, I hope, science will consider as an homage to the merit and universal services rendered by Dr. Jenner, one of England's greatest men. It is a great happiness to me to glorify that immortal name on the very soil of the noble and hospitable City of London." Nothing so wonderful had ever occurred before, except, when in the British House of Commons, Jenner was voted £20,000, in 1803, for his services in the interests of humanity and his country.

In 1882 Pasteur attacked the question of swine fever, successfully, and similarly cultivated its vaccine, while Robert Koch, in Germany, directed the attention of the world from the triumphs of the splendid Pasteur to Germany by announcing his discovery of the elusive germ of tuberculosis.

It will be of interest to recall here some of the facts relating to this discovery by the man, who during the decade between 1880-1890 divided the honors with Pasteur, and through developing his method of solid cultures served to make the isolation of the germ of any particular disease an easier and more rapid means than that of Pasteur, who necessarily had to depend on abstracting the specific germ from the blood of his culture animals.

It was in 1884 that Loeffler, sifting the work done by Eberth, Klebs, Letzerich, and others undertook the cultivation and separation of the various bacteria present in diphtheria membrane by utilizing Koch's solid gelatine culture medium. He found diplococci and streptococci, as had others, and by inoculation experiments proved that these were not the true germs of the disease. Pushing his experiments, he found that in the deeper parts of the membrane were present bacteria, which on starting proved to be bacilli. Utilizing this material for cultures, he found that identical organisms were obtained from all the patients, having both the morphological and biological characteristics. Inoculation experiments prove that rats and mice enjoy complete immunity, while guinea pigs fall easy victims, due, it appeared, not to the germs in the blood, but to a poison produced at the seat of inflammation, which causes "an alteration in the walls of the blood vessels, leading to hemorrhages throughout the body." How recent years have verified these first experiments published only two years after Koch's great discovery all know; and how Behring, Yersin, and Roux have since developed the methods of culture on blood-serum, and produced the antitoxin of the disease, which in benefiting humanity stands next in rank to the vaccine of cowpox, the world though its results has become everywhere familiar.

Reference has already been made to the clinical experiments which led Budd, Jenner, and others to believe in a specific cause in typhoid, and in its differentiation from typhus. The study of this latter disease has been but slight, with its lessening prevalence in progressive countries. What it was in 1849 Sir John Simon, referring to the dark courts and alleys of London, in slums of London, states: "Typhus prevails there, too, not as an occasional visitor, but as an habitual pestilence. It is impossible for me, by numbers, to give you the exact fatality of such spots. . . . But this I may tell you, as an illustration of what I mean: that in the few houses of Seven Step Alley and its two offsets, Amelia Place, and Turner Square, there occurred last year 163 parochial cases of fever": while what its meaning was elsewhere may be judged from the following quotation regarding the deaths occurring amongst the emigrants who died of ship fever, or typhus, at the Grosse Isle quarantine stations in 1847. "According to the hospital returns for the year of 98,106 emigrants inspected at the Port of Quebec, 8,691 were admitted into the Grosse Isle Hospital, and of these 3,226 died, while in addition 2,198 were

buried in the cemetery at Grosse Isle, who died on the vessels held in quarantine."

How different then and now may be judged from the report of the Quarantine Station for 1902.

For similar melancholy stories we must to-day go to the cities of the Far East, where with their crowded millions typhus and its fellows, cholera, and the plague, mark the existence of social and unsanitary conditi ns, which Europe and America have relegated to the limbo of a pre-scientific age.

Smallpox, in 1882, was the first, as it continues to be to-day, of the diseases to which public health authorities on this northern continent, pay special attention; and with such successful results that since the organization of the Provincial Board of Ontario, there have been in twenty years but 205 deaths. So marvellous, indeed, has been the progress in dealing with this decimating plague of the 18th and earlier centuries, that the public of to-day, unconscious of their privileges, assume too often an attitude of arrogant indifference, begotten of ignorance of what science has been doing for them, which makes it difficult to speak with judicial calmness regarding vaccination. Dr. Jenner, writing in 1801, says: "Upwards of 6,000 persons have now been inoculated with the virus of cowpox, and the far greater part of them have since been inoculated with that of smallpox, and exposed to its infecti n in every rational way that could be devised, without effect."

What smallpox then meant is shown in the figures collated by Mr. John Simon, showing the deaths in a 1,000 deaths before the discovery of vaccinati n in Geneva, and from whooping cough, measles, and scarlet fever by age distribution in England in 1847:

	Under 5 years.	Under 10 years.	Over.
Smallpox deaths in 1,000	805	155	40
Whooping cough "	943	52	5
Measles "	883	92	25
Scarlet fever "	656	254	90

To-day deaths from smallpox in the vaccinated are practically unknown in children, and, if in adults, only where revaccination has been neglected.

To quote but another example from early records, Mr. Cross, of Norwich, Eng., in a very severe epidemic which prevailed in 1819, observed minutely 112 families with the following results:

	Number.	Cases of smallpox.	Deaths by smallpox.
Total persons in families	603	202	46
1. Protected by previous smallpox	297	None.	None.
2. Protected by vaccination	91	2	None.
3. Unprotected by vaccination	215	200	46

To-day we can present similar statistics, wherever the conditions make similar observations possible; and in addition we have what was not possible in Jenner's time, an adequate scientific reason for the immunity brought about by vaccination, with the added safeguards in the operation through aseptic surgery, which, if possible then, was not practised or

considered wholly unnecessary. It is to the last fifteen years, and to our knowledge of the germ theory of disease, that aseptic glycerinated lymph has become a practical means of inoculation with a pure culture of the vaccine lymph. Immunity through its production of substances in the serum of the blood inimical to the reproduction of germs in the blood lymph has been proved, by the neutralizing action of the serum from smallpox patients, or from vaccinated heifers on vaccine. These facts but add to the glory of Jenner's discovery, and the Chairman of the Committee on Vaccination of the English House of Commons stated in 1802: "Upon the beneficial effects of this discovery I hardly wish to trouble the Committee (of Supply), as I am certain, if the report, which contains the scientific opinion of the first medical men in this country, does not satisfy the House, the united opinion of all the world, the homage of Europe, which has been paid to the discoverer of this blessing, will have its due weight on the minds of his countrymen."

Aphtha. Another disease belonging to the list of those affecting animals, and to some extent man, is foot and mouth disease, or *aphtha epizootica*. On the Continent before 1860, and in England from 1860-70, it prevailed as an epidemic, ruining hundreds of farmers, and destroying thousands of cattle. Klein, in 1885, announced the discovery of its germ as a micrococcus, found in the discharges of the vesicles, and in the tissues; but this was not confirmed. Within the last five years, however, M. M. Loeffler and Frosch have proved that from a drop of serum from an unbroken aphthous vesicle of foot and mouth disease, some minute lymphatic cells were seen, appearing at times as almost imperceptible points. They are finer than any known bacteria, since they passed through a Berkfeld porcelain filter, and while seeming under the microscope perfectly limpid after filtration, yet a cubic centimetre of the fluid injected into the veins of a cow caused a characteristic attack of aphthous fever.

Rabies. A yet greater gift to mankind was that of the indefatigable M. Pasteur, who, in 1885, announced, if not the discovery of the germ of the disease, that he was able to take the tissues of the spinal cord, and by reducing the virulence of its contained virus, to protect by vaccination men and animals affected with rabies. Within more recent years (1900) Dr. A. Bruschettine seems to have definitely determined its specific germ, as being a short thick bacillus, capable of producing the disease by inoculation experiments. However this may be, the practice of vaccination against hydrophobia has become ordinary medical practice, and Pasteur first showed that the disease depended upon (a) the quantity of virus introduced, (b) the point of its introduction, (c) the virulence of the virus, as determined by the animal yielding the material. Thus, he found that the virus was attenuated when passed from a dog to a monkey, and that by passage through successive animals, the pulp of the spinal cord failed to produce a fatal attack of rabies. He again showed that by taking this weak virus, and passing it in an ascending series through animals, as rabbits, dogs, or guinea-pigs, which increase its virulence, it comes back to a strength that kills, slowly or rapidly, according to will. Thus he found that virus from a dog with street rabies, injected into the rabbit, became so intensified that the incubation period in the dog, of 12 to 14 days, after the 100th passage through animals, became reduced to 6 or 7 days. This Pasteur called *virus fixe*. He further found that virus is attenuated by temperature; and if it be subjected for an hour to a temperature of 50 deg. C. its activity is completely lost, or in half an hour at 60 deg. C. It has been further found that it rapidly loses virulence by exposure to air and sunlight. To develop a practical means of producing a vaccine, Pasteur developed the

simple process by which a series of spinal cords from inoculated animals were suspended in sterile flasks, plugged with cotton wool, and maintained at a temperature of 22 deg. C. Pulp made from cord so treated for 24 hours was found slightly less virulent; that at the end of 48 hours less so, and so on till, at the end of the 13th or 14th day, the virus was inactive. This determined, a dog was inoculated with 14th day virus, and so upward again until it withstood the fatal virus fixe, or was completely immunized against rabies. He found by experiment that if animals bitten were injected within five days thereafter, almost all could be saved, and less so as the time lengthened, just as we know is the case with smallpox vaccine. Soon came the occasion for his *experimentum crucis*, when Joseph Meister was bitten badly, on the 4th July, 1885, on the arms and legs by a rabid dog. As he was certain to die, it was resolved to test the new vaccine. Thirteen injections were given within ten days—two on first day with 14-day-old virus, two on second with 11th and 8th day cord, and then on each following day with cord of a day greater in virulence. On the last day he injected the virus from the cord of a rabbit of full virulence. The boy remained well.

This wonderful discovery, which still further spread the fame of Pasteur, has been developed, and now the preparation of serums from the blood of treated animals has become a routine practice.

Tetanus. This disease, though not one which ordinarily appears in epidemic form, nevertheless, though endemically present in most populous districts, has appeared in localized outbreaks, and, owing to its great fatality and painful symptoms which it exhibits, is one to which the attention of bacteriologists was early directed. So early as 1884, Carle and Cattani discovered virus in tetanus that could be inoculated from men to animals; but it was not until 1889 that the tetanus bacillus was obtained in pure cultures by Kitasato, and also by Tizzoni and Cattani as an anaerobe, which was spore bearing. These spores are exceedingly resistant even to moist heat; but, fortunately, the germs do not develop in free air. Its presence, however, in the earth of gardens and streets in various localities, made it very desirable that investigations be carried on to discover if possible its antitoxin. Behring, Kitasato, Ehrlich and Tizzoni labored at this for some years, and by 1890 the fact of an immunity being established against the disease through the injection of a toxin of graduated strength, was confirmed. Its utility has hitherto been limited by the fact that the quantity of antitoxic serum required for a successful result is at least two thousand times as great after the symptoms of tetanus have appeared, as compared with that required when an injection has been made antecedent to inoculation with the disease. This fact, associated with the further fact that the tetanus germ goes on developing in an ordinary punctured wound without any sign of its presence till the onset of the spasms caused by it, makes any chance of treating the disease successfully by the antitoxin relatively slight. The very complete knowledge which we now possess of the cause of tetanus, and the conditions under which it develops have, however, enabled the surgeon when called upon to treat punctured wounds, to take such steps at the time the wound occurs as will preclude in large measure any danger of its development.

Cholera. The story of cholera epidemics had become little more than a memory to most in Canada by 1882, since the last outbreak of any extent was in 1855, previous outbreaks having appeared in 1832 and 1849. In 1884, its appearance in Toulon, France, having come by way of Egypt, put all Europe in a state of excitement, only possible by the appearance of such a disease. The French Government sent a commission, designated by Pasteur, to Alexandria to study the disease, and Professor Koch, of Berlin, also went

there to study the outbreak. The outcome of this work at Alexandra, when the brilliant Thenard, student of Pasteur, was a martyr to science, and that of Toulon, in 1884, resulted in the discovery of the comma bacillus of Koch. This supposed cause became the subject of study and dispute for ten years; but time has only served to confirm the first claim that the germ of cholera, like that of typhoid, grows in the intestines of the patient, and causes death by the toxins produced by it. It is, like typhoid, essentially associated with infected food and water, and the discovery of its cause and methods of its propagation have changed the disease, which formerly caused men to forget their natural duties under the influence of fear, to be as amenable to the operation of sanitary laws as that of any of the other diseases. Thus, as in typhoid, experiments have proved that cholera bacilli have been carried from the dejecta of cholera patients to milk and other articles of diet, as shown by M. Haffkine in the inoculation of sterilized milk exposed in clean vessels to flies, similarly as in typhoid. The use of cholera-infected water for washing cooking utensils has proved especially the mode of the spread of cholera by means of milk. Nurses and others about patients may, of course, through lack of cleanliness, convey the disease. But apart from these causes, as was shown at Hamburg and Altona in 1892, where the first city was decimated and the adjoining one remained free, the cause in the one was polluted water, while Altona had pure water.

Plague. The disease which for two thousand years has horrified the world through its appearance in widespread epidemics has likewise during the past quarter of a century had to submit to the penetrating power of the scientist. Not that it is possible in practice to wholly extirpate the disease; but to-day we are practically informed as to the weapons of defence; and it only requires executive methods to be thorough to stamp out the disease with the same certainty as smallpox.

It is to Kitasato, a Japanese student of the Hygienic Institute of Berlin, made famous through Professor Koch, that we owe the discovery of the bacillus of that plague, which for centuries has prevailed in Oriental countries with a terrible fatality. Not only has this scientist shed glory on his country, but he has won renown throughout the whole world of science through his heroism in exposing himself to the study of an unknown source of danger. He found in the bodies of patients with plague a characteristic bacillus, growing readily outside the body in blood serum, but in severe cases it is found in the blood, being usually more abundant in the lymphatic glands, where the buboes or pustules develop. Inoculation of rats with material from infected rats proves fatal in from one to five days. The disease had been noticed to be disseminated especially where rats abound in a locality, as along the wharves of Eastern cities; and it remained for Simond to prove that the disease seemed to spread directly through the fleas, which, biting sick rats, took the infected blood into their intestines, and then subsequently biting a person inoculated him through the bite. Dust, besides when inhaled or when falling upon food to a limited degree, becomes a source of infection. The recent report of the India Plague Commission concludes that man has, however, been the common medium of transmission. These notable, and what but a few years ago would have been called marvellous, discoveries, have been made still more important by the production of a serum at the Pasteur Institute, Paris, by Yersin, through inoculating horses with a graduated amount of the cultivated bacillus of the disease. The serum has proved to be not only protective by immunizing against the disease, but also to some extent curative in those attacked. As in other diseases, however, the success

of this scientific procedure in stamping out the disease will be in direct proportion to the intelligent application of executive methods at the ports of those countries whence vessels from the Orient come.

Malaria. The work of Manson and Ross, within the past five years, indicating the mosquito (culex anopheles) to be the medium of transmission of malaria from one person to another, owing to the fact that the coccidia of the haematozoon malariae multiply in the intestine of the mosquito, and reaching therefrom the poison ducts are injected with the poison into the wound made by the bite had barely been proved, and the possibility shown of preventing malaria in such fever districts as Lagos, in West Africa, by draining the puddles of water, or covering them with petroleum, in which the mosquito develops, when from Havana came the news that Findlay, Reed, and others had actually proved that yellow fever was similarly transmitted. In proof of which a young physician became a martyr to experiment by allowing himself to be bitten by a mosquito previously having bitten a man sick with the disease. He thereafter took the disease and died, the agent of the disease being another mosquito, the Stegomya.

Similarly, prevention has followed by the simple expedient of placing the patients within sick rooms surrounded with mosquito bars, and allowing none of those within to leave, and keeping out absolutely all others, except immunes as attendants. Havana, by thorough treating of the cesspools and puddles, where the mosquito develops, with petroleum has banished the disease, while its introduction is prevented by having all sick persons on ships from infected ports placed on shore in mosquito-proof quarters, any mosquitoes on the vessels killed, and a daily examination of non-immunes, so arriving in the city until their period of incubation is passed.

These several references to the discoveries made during the past twenty years, regarding the causes of diseases, have, as already remarked, been the basis upon which exact regulations for the suppression of the several diseases have become more possible. In the matter of smallpox, vaccination had been made compulsory from years of results based upon experience; scarlet fever had taught that through long isolation its eradication was alone possible, though even during these twenty years physicians have been known to go into the courts and declare its non-contagiousness. Diphtheria was a *quæstio vexata* twenty years ago, and its origin was described as sporadic, as depending upon pythogenic causes, as decaying animal and vegetable matters; but with the discovery of its bacillus in the discharges of the nose and throat, and the means of its cultivation, it has become possible, in the most exact manner, to limit its spread, by determining the infectiveness of a patient by the presence or absence of the bacillus during convalescence. The knowledge of the bacillus of typhoid and of cholera, and their presence in sewage, has made it possible, by preserving water supplies from pollution, and by disinfection of bowel discharges in patients, to practically eliminate both as causes of mortality in the millions of people in hundreds of cities obtaining their drinking water from public supplies. The simple expedients of protecting the non-immune residents of centres, where malaria and yellow fever tend to prevail, from the bite of infected mosquitos, has made these sources of mortality to be brought within the compass of a prophylaxis possible under health regulations strictly and intelligently enforced.

If, however, we turn to that most fatal of the diseases in temperate climates, tuberculosis, we are met with one, which, unless it be leprosy, in its mode of attack, slow, insidious, now retrograding and deceiving, by raising hopes often doomed to disappointment, yet seldom failing in the

end to make its last thrust fatal, presents so many elements of difficulty in the institution of practical measures for its suppression, that we to-day have to confess that the very immensity of the measures to be taken, owing to the enormous number of people affected, the long course of the disease, the cost of treatment, and the intimate relation of the disease to individual habits, social customs and industrial methods, make any executive attempts which hitherto have been possible, confessedly wholly inadequate to cope with the problem.

It is not that we do not know what is needful; but rather, it is that in this disease we would seem to have purposely presented to man the solution of a problem which contains, in a peculiar sense, ethical elements, in which the question, "Am I my brother's keeper?" raised at the dawn of history by the first materialistic philosopher, must be answered in the affirmative before society need ever expect to rid itself of this approbrium of civilization and progress.

But some day, somewhere, and somehow, there will yet be those who, following the teachings of that pure science, which is wisdom personified, shall be able to say, with the yet bound Prometheus: "But my spirit is not wholly cast down; for I know that I have done good to the sons of men, and that they honor the Titan, Prometheus, who has saved them from cold, and hunger, and sickness."

CHAPTER II.

STUDY OF STATISTICS OF CONTAGIOUS DISEASES IN ONTARIO IN 1902.

The diseases reported during the year 1902 have been collated from the 675 Annual Reports of Local Boards of Health, as returned according to law to the Provincial Board of Health. (See page 140.)

The returns include practically all the cases of smallpox which occurred in Ontario in 1902. It is important to note that all of these cases seem to have been reported or brought to the knowledge of the local health authorities, and, indeed, were almost invariably reported at the time of occurrence by the latter to the Provincial Board of Health. The rate of mortality is remarkably low, being 0.44 per cent. The difference between this disease, which we have been accustomed to view with so much dread, from its old-time fatal character, and scarlet fever, which in recent years we had begun to hold in contempt, is well seen in the tables, which show for the latter a mortality of 8.5 per cent. for 1902. Similarly, diphtheria shows a mortality of 15.5 per cent. It is probable, and indeed certain, that in the case of scarlatina, mild cases were frequently not reported; but the great increase in case mortality in 1902 has been, as already pointed out, very remarkable. The same is even more true of typhoid, which in hospitals often does not show a case mortality of over 5 per cent., but in these returns shows a rate of 15.1 per cent.

The returns of cases of tuberculosis have similarly been so imperfect that they have been excluded from the table, since the total deaths are returned in the monthly reports. We find that of scarlet fever, smallpox, and diphtheria, and typhoid, 10,490 cases came under the supervision of Boards of Health, with a mortality of 952, or 9.3 per cent. The distribution of cases by municipalities shows smallpox to have been present in 8 cities, having 386 cases; 40 towns and villages, having 267 cases, and 121 townships, having 2,141 cases. It will thus be seen that the disease was least prevalent in the towns and villages, there having been in cities 1 case to 1,063 persons; in towns and villages, 1 case to 1,690 persons; and in townships, 1 case to 680 persons.

In the instance of scarlet fever, we find that there were 3,458 cases reported, with 290 deaths, or a rate of 8.4 per cent.; 14 cities reported 1,698 cases and 147 deaths, or 8 per cent. of deaths, while 208 towns and villages reported 780, with 70 deaths, or 9 per cent.; while the cases returned by the townships were 979 cases, with 73 deaths, or 7 per cent. It would seem that the notification and mortality in many municipal divisions was much the same; but a closer examination of the tables shows that in some municipalities no cases were reported whatever until a death occurred.

With regard to diphtheria, we find the total cases to have been 2,696, with a mortality of 15 per cent. In the cities there were 1,459, with 214 deaths, or 14.7 per cent; in the towns or villages, 666, and 77 deaths, or 11.6 per cent., and in the townships, 571, with 117 deaths, or 20 per cent. The high case mortality in the townships points to the conclusion that a notable number of cases were not reported until they terminated fatally, and that many which recovered were not reported at all. This is confirmed by such a return as that of Collingwood, where 4 deaths and 4 cases only were reported, or that of St. Vincent Township, with 2 cases and 2 deaths.

Typhoid fever returns for the Province show a total of 1,542 cases and 242 deaths, or a case mortality of 16 per cent. In the cities the cases were 420, with 81 deaths, or 19.3 per cent.; in the towns and villages, 648 and 95 deaths, or 14.1 per cent., and in the townships 474, with 66 deaths, or 13.9 per cent. The explanation of these very notable differences in the mortality rate is very difficult on any other supposition than that of neglect to make returns according to the facts, or not to return cases at all in some instances. The case mortality in the cities, for instance, is double that of the camps of either Chickamauga, in 1898, where 20,000 men of the troops were sick, with a case mortality of 10.5 per cent., or that at Bloomfontein, in 1900, where, with an almost equal number of cases, the mortality rate was almost the same figure. In this, as in other respects, it is apparent that the routine work of our Local Boards of Health is very imperfectly performed.

Taking these four diseases as those including most of the deaths due to preventable disease, excluding tuberculosis, we find that the deaths returned month by month by the Division Registrars were 1,061 cases in a population-return of about 90 per cent. of the total. Roughly, therefore, it may be said that 1,200 deaths occurred in Ontario from this class of diseases. That it is a creditable showing may be gathered from the following table, although several of the Ontario cities are high in the comparative list for cities:

Table Shewing the Number of Cases and Deaths in Different Countries and Cities from Smallpox, Scarlet Fever, Diphtheria and Typhoid.

	Population.	Smallpox.		Scarlet Fever.		Diphtheria.		Typhoid.		Rate per 1,000.
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Ontario (1902)	2,182,942	2,797	12	3,452	200	2,696	408	1,542	242	0.43
England and Wales (1900)	32,526,675		85		3,844	....	10,187		5,591	0.603
Scotland (1900)	4,472,000	523	53		654		771		644	0.47
New Jersey (1901)	1,925,781	225	32	2,496	155	3,444	834	944	375	0.72
Ohio (1901)	2,760,656	..	..	..	..		811		1,143	
Massachussetts (1900)	2,805,346	104	2	6,396	358	12,641	1,387	2,967	533	0.80
Illinois	4,821,550	....	25		643	..	1,504		1,897	0.80
London, Eng. (1901)	4,544,983	1,710	229	18,381	584	12,158	1,258	3,194	497	0.50
Liverpool (1901)	656,332	37	6	3,310	195	....	209	864	154	0 82
Birmingham (1901)	523,284	.....	.. ..	3,314	156	533	85	615	111	0.67
Dublin (1901)	245,001		...	455	15	150	28	1,038	99	0 54
Boston, Mass. (1901)	573,579	504	74	1,398	210	3,319	353	714	142	1 30
Baltimore (1901)	518,000	21	..	367	11	1,607	164	705	141	0 60
New York (1901)	3,457,202	1,964	410	16,692	1,162	12,056	2,068	2,748	727	1.00
Chicago (1901)	1,758,025	....	4	1,773	165	2,237	495	.... ..	509	0.60
Detroit (1900)	285,704	.....	1	....	16	.....	113	. ....	54	0.99
Montreal (1901)	267,516	.....	1	.	242	..	99	.....	139	1 80
Toronto (1902)	208,040	28	.. ..	701	88	893	115	130	25	1.23
Ottawa (1902)	59,928	300	2	689	50	230	28	...	22	1 73
Hamilton (1902)	52 634	5	....	97	3	106	24	64	7	0.64
Brantford (1902)	16,619	2	.....	37	....	72	12	43	4	0.96
Guelph (1902)	11,496	....	.. ..	24	.....	14	2	16	.....	0.17

The table is an interesting one, illustrating, as it does, the high standard of health held by Ontario, as compared with other countries. Incidentally, it may be mentioned, that the rate in Ontario is lower than that for 1901, in which the total deaths were 1,547.

As illustrating another important point, the following table has been prepared, giving the percentage of deaths to cases in a number of cities:

Table showing the Percentage of Deaths to Cases from Smallpox, Scarlet Fever, Diphtheria and Typhoid in different Cities.

Table giving Percentage of Deaths to Cases in Cities.

Cities.	Smallpox.	Scarlet fever.	Diphtheria.	Typhoid.
	Per cent.	Per cent.	Per cent.	Per cent.
London	13.3	3.17	10.03	15 5
Liverpool	16.2	5.8	12.5	17.8
Birmingham	None.	4.7	16.0	17 8
Dublin	None.	3.2	18.7	9 06
New York	25.9	6 96	17.1	26 4
Boston	14.68	15.02	10.63	19 77
Baltimore (1901)	None.	3 03	10.02	20.7
Toronto (1902)	None.	12.5	12.8	19.1
Ottawa (1902)	None.	7.5	13.0	Cases not given.
" (four months of 1903 in new hospital)	.....	2.2	10.4	.....
Hamilton	None.	3.09	22.6	10.9
Brantford	None.	None.	16 6	9.3
Guelph	None.	None.	14 2	None.

The variations in the type of the several diseases, or in the facilities and methods of treatment, are fully indicated in the mortality rates in the widely separated centres. Thus smallpox, of a high mortality rate, appeared on both sides of the Atlantic, the cases in New York and Boston having their sources in emigrants from Europe.

The inland cities had cases of the mild Cuban type, with few deaths. On the other hand, scarlet fever in no English city shows a high mortality, whereas Boston had 15.2, Toronto 12.5, and Ottawa 7.5, and New York 6.96 per cent. of deaths. Again, Hamilton had but 3 per cent., while Brantford and Guelph, with 37 and 24 cases respectively, had no deaths.

Typhoid fever similarly is seen to vary notably in its mortality rate to cases; but as the notification of the disease varies greatly in different cities, the comparison in this case is likely to be inconclusive.

Another matter of great practical interest is set forth in the different statistics, showing the provisions for the hospital treatment of the cases.

Such as are available on this point are given in the following table:

The reports from different cities do not give a systematized statement on this point, and some are very imperfect.

Table showing Percentage of Cases of Smallpox, Scarlet Fever, Diphtheria and Typhoid treated in Hospital to total reported Cases.

Cities.	Smallpox.	Scarlet fever	Diphtheria	Typhoid.
	Per cent.	Per cent.	Per cent.	Per cent.
London (Eng.), 1901	97.	78.8	74 8	45.3
Liverpool, 1901	100.	54.9	56.	65.5
Birmingham, 1901	None.	80.	None.	37.
Dublin, 1900	None.	100.	100.	50.
Boston, 1901	.....	.....	.....	.....
New York, 1901	100.	7.00	10.00	Not stated.
Toronto, 1899	100.	40.7	72.9	Not stated.
Ottawa, 1902	100.	56.3	90.1	Not stated.

These figures illustrate imperfectly a fact of great practical importance, viz.: the increasing estimation in which hospital treatment is held, not so much in the matter of treatment, as in being a sanitary necessity for stamping out disease. The Metropolitan Asylums Board of London is especially empowered to deal with contagious diseases sent in by the Medical Officers of Health of the different sanitary areas of that city. They had in all in 1901 6,178 beds in 12 hospitals, which can be increased in an emergency, if necessary.

How this accommodation has been developed is seen in the following table:

Percentage of Admissions to Hospitals in London of Total Cases of Smallpox, Scarlet Fever, Diphtheria and Typhoid notified in 1901.

Diseases.	1890.	1895.	1900.	1901.
Smallpox	36 67	84.5	73.56	97.2
Scarlet Fever	42 82	58.2	75 15	78.89
Diphtheria	17 87	41 55	72.48	74.35
Enteric	22.49	24.13	47.70	45 34

It seems little short of marvellous that in a city, with a population of 4,544,983, the machinery should have developed to such a completeness, that 74 per cent. of all the cases of these four most serious contagious diseases should have been treated in hospital, with a resulting decreased mortality, only excelled by the City of Guelph, Ontario, out of the 15 cities given in the table. The Managers' report of the London hospitals points out how, in 1893 and 1895, the percentage of cases in hospitals decreased, owing to the prevalence of these diseases, and insufficient accommodation provided; and further states that the percentage might again fall during an epidemic. The remarkable situation exists, however, that with such abundant accommodation for removal of first cases, the constant result follows, that the sources of epidemics—first cases are being constantly removed. Sir Charles Cameron, of Dublin, urges in his report: "I would earnestly beg the Committee to bring this important question of hospital accommodation for fever cases before the Council." Dr. E. W. Hope, Medical Officer of Health of Liverpool, in 1901, writing on hospital accommodation, states: "It is now some 16 or 17 years since the necessity for the provision by the City Council of adequate hospital accommodation came into prominence. At that time, however, in Liverpool as elsewhere, public opinion was somewhat unformed, owing to the absence of any experience of the advantages resulting from hospitals, other than work house hospitals, for their treatment, and there was then little public support in promoting the work; indeed, there was a general reluctance, more especially on the part of those who were least able to isolate or nurse the infected at home, to allowing the patients to be removed to hospital. However, as more beds became available, and the advantages of hospital treatment became more apparent, not only in promoting recovery, but what is of even greater importance, in checking the existence of disease, the public soon began to realize the advantages of these institutions, and at the present time seek as a favor, or demand as a right, that means shall be provided by which persons may be taken care of when suffering from infectious sickness."

Speaking with regard to the work of the year, he further says: "Several circumstances combined during the year to tax very considerably the existing hospital accommodation. Very serious inconvenience was experienced on account of the inability to provide accommodation in hospital for consid-

erable numbers of patients who needed such accommodation. That was notably the case with scarlet fever. These cases had to be left at home, with the inevitable consequence that infection was spread from them as centres, and the disease extended to a very considerable amount." It is further added: "The reduction in the number of cases of this disease, which had been noted in 1900, ceased immediately the removal of patients to hospitals was stopped." How large a part of public health work this question of hospital provision forms in England, may be gathered from The Isolation Hospitals' Act of 1894. Under it the County Councils are to consider the need of such an hospital in any borough, and under section 6, may direct the County Medical Officer of Health to make an enquiry as to the necessity of an Isolation Hospital being established for the use of any particular district, and if he reports that such an hospital ought to be established, the Council may take proceedings to have it established, the same as if a petition had been preferred by a local authority.

As regards the utility of hospitals in lessening the spread of contagion, Dr. Alfred Hill, Medical Officer of Health for Birmingham, speaks in the report of 1901. Referring to the prevalence of scarlet fever, he states that the disease was as prevalent in houses with over three rooms, as in those under, viz.: cases at the rate of 12 houses in every 1,000. He then remarks: "It seems to me, however, very probable that the incidence of the disease would be much greater in the small houses if the cases were kept at home, instead of being removed to hospital. As a matter of fact, in the quarter referred to, 444, or 95 per cent., of the cases in three-roomed houses were removed to hospital. From houses of four rooms and upwards, 85 per cent. of the cases were removed, showing that the hospital is utilized, as it should be, to a greater extent by the tenants of small houses, than of large ones."

It will be noticed in the table given that no satisfactory statistics are available, indicating the percentage of cases treated in hospitals specially set apart for contagious diseases. Indeed, except for smallpox, it would appear that especially England, and even Ontario, are notably in advance of American cities in this matter of separate hospitals for contagious diseases.

With the history of ten years of public health work in England, showing such progress in dealing with outbreaks of contagious disease, we may properly turn to Ontario, and observe the methods which have been in existence, and the progress here of sanitary methods. As regards smallpox, the Ontario Regulations since 1885 have required the removal of cases to hospitals, as provided in Regulation No. 2:

3. On the occurrence of the first, or any, case of smallpox in a municipality, the Medical Health Officer shall at once remove the person attacked to the isolation hospital, tent, or other place provided under section 44 of the Public Health Act, 1884, or cause such person to be otherwise efficiently isolated, and shall take proper measures for the disinfection, or if necessary the destruction, of all clothing which may have been exposed to the contagion, and for the disinfection and purification of every conveyance, rail-car, steamboat, sailing-vessel, carriage, or other vehicle, which may have been exposed to the contagion. Sec. 3, Smallpox Regulations

The results of this practice have been so obvious in the instance of smallpox, that it has met with no opposition, and since 1900, when the present epidemic began, the utilization, by towns and township Local Boards of Health, of double walled tents, has quite frequently been put into practice. In the larger centres permanent buildings have generally been constructed. In the matter of diphtheria and scarlet fever, the practice has varied. The general hospitals, prior to 1890, in a number of instances, as at Toronto, Hamilton, and London, had been in the habit of receiving cases of diphtheria, and to a small extent, those of scarlet fever. The objections to this practice became so obvious, that in most cities and towns annexes, or separate buildings altogether, were erected, and maintained under the supervision of the

hospital authorities. Toronto was the first to establish, in 1892, a separate isolation hospital, under the direct control and management of the Local Board of Health; and even yet in other places the management of contagious disease wards, or separate buildings in the General Hospital grounds, is largely under the hospital authorities. In the smaller cities and towns, this practice is convenient, and if admissions and dismissions are made under the authority of the Medical Health Officer, there need be no objection raised to the practice.

Such conveniences for the reception of contagious diseases exist in the following cities and towns:

Table of Cities and Towns with Contagious Diseases Hospitals and Wards.

Toronto	Isolation Hospital—Managed directly by Local Board of Health.
Hamilton	Wards in General Hospital.
Kingston	Wards in General Hospital and Hotel Dieu.
Ottawa (1903)	Isolation Hospital—Managed by Local Board of Health.
London	Separate wards in General Hospital.
Galt	Isolation Hospital, under management of General Hospital for smallpox.
Guelph	Separate annex in General Hospital.
"	" " St. Joseph's Hospital.
Mattawa	Separate annex, under management of General Hospital.
Brantford	Separate building, under management of General Hospital.
Port Arthur	Wards in St. Joseph's Hospital.
Belleville	Separate wards in General Hospital.
Brockville	Separate wards in St. Vincent de Paul.
Collingwood	Separate building at General Hospital.
Peterborough	Nichols Hospital and St. Joseph's Hospital (separate wards).—Under hospital management contracted with by Local Board of Health.
Chatham	Separate building, under management of General Hospital.
"	" " " St. Joseph's Hospital.
Stratford	No special wards.
Sudbury	Separate building of General Hospital.
"	" " St. Joseph's Hospital.
Huntsville	Separate building of General Hospital.
Berlin	Isolation Hospital, under management of General Hospital.

This list includes all the hospitals receiving Government aid, which, according to the Report of Hospitals and Charities, received cases of contagious disease up to Sept. 30th, 1902. There have been, however, in various smaller municipalities, temporary hospitals or tents, to which cases of these diseases have been removed; and with the new Regulations dealing with scarlet fever and diphtheria, we may expect that great progress in this direction will be made.

The Regulation requiring the removal of cases to an isolation hospital or tent, is the same in character as for smallpox, while it is supplemented by the following Regulations:

6. Where the emergency demands such measures, he shall further place in another building or tent which shall be provided as prescribed in the Act, all persons who may have been exposed to the contagion, and shall supply them with all necessaries until the period of incubation of the disease shall have elapsed as provided in Section 93 of the Public Health Act. No person who has not had scarlet fever shall go, or be permitted to go, abroad until the period of incubation of the disease has elapsed, and until the clothing or effects worn or carried by or with all persons exposed to the contagion be disinfected as provided in the Act.

Whenever in a house there is a case of scarlet fever or wherever there are persons isolated in the same on account of exposure or supposed exposure to scarlet fever, no children or other persons shall be permitted to leave the premises until in the opinion of the Medical Health Officer, they and their clothing are free from infection.

7. Whenever a case of scarlet fever has occurred in a child attending any school, the Medical Health Officer shall personally, or through another physician, cause a daily examination to be made of all the children of the school room for at least one week from the date of the occurrence of the last case amongst such children. If any children are absent from such school, a medical examination shall be made of them in the same manner as if they were in attendance at the school.

At the date of writing, the monthly returns of Contagious Diseases in Ontario for January, February, and March, 1903, have been prepared, and the situation of relative immunity of the population of Ontario during twenty

(20) years, from a severe type of scarlet fever, has suddenly and notably changed. In January, 1903, the total deaths returned were 90, in February 104, and in March 100. The rate exceeds that of any year in 30 years, and shows more than three times the mortality for the same months of 1902. The virulence is illustrated by the returns of cases for March, which show 545 cases in 100 municipalities, and 100 deaths, or a case of mortality of nearly 20 per cent.

Such a situation makes evident the historic fact of the remarkable variability in the virulence of scarlet fever, in different outbreaks, in different countries, and even in the same outbreak in the same country. As diphtheria had replaced it in importance in Ontario for many years, it may not be improbable that unless special measures for its repression are exercised, scarlet fever may again replace diphtheria in importance as a disease coming under the attention of public health authorities.

What a survey of the history of public health in different countries, and at different periods in the world's history, makes very evident, is that, with all the progress seen in the science of Preventive medicine during the past century, the unknown quantity which enters into the problem, and which determines the natural virulence of the germs of different diseases, still exists, and is bound to play an important part in tables of mortality, great or little in proportion as the known practical means are put in operation for the suppression of outbreaks by dealing with first cases. How this may be done, together with the results of such methods, is not only illustrated by the quotations from reports of Medical Officers of Health in England, but also by the following statement by the Medical Health Officer of Ottawa, Ontario, regarding the influence of the new isolation hospital of 60 beds, opened in the end of 1902, on the prevalence of scarlet fever and diphtheria:

Memorandum from Dr. R. Law, Medical Health Officer, Ottawa, respecting the Scarlet Fever situation in Ottawa, April 29th, 1903.

	Cases.
Thirty-four houses quarantined contained at end of Dec., 1902	59
The overcrowded old hospital contained	48
A total of	107

(1) At the end of December, immediately preceding the opening of the hospital:

To-day we find thirteen houses quarantined	14
The hospital containing	32
A total of	50

A decline of over one-half.

(2) Comparing total number of cases with corresponding period for 1902, we find:

Month.	1902.	1903.
January	45	48
February	55	31
March	42	32
April	56	21
Total	198	132

A decrease of one-third.

The first month (in 1903) showing a slight increase—the last month the most marked decrease of over 50 per cent.

(3) The number of placards put up during corresponding period of 1902 was 109, as compared with a total of 27 in 1903. The hospital is thus seen to have done away, to a great extent, with the greatly increased risk of infection, the hardship and expense of a quarantine at home, which had to be forced upon so many last year.

(4) Including cases transferred from old hospital and from outside municipalities, 121 cases have been treated in the hospital, with 3 deaths.

"As regards the utility of the new Regulations, I think them excellent, as clearly defining the powers and duties of the local health authorities, and, for the three years preceding the opening of the hospital, a steadily increasing roll of scarlet fever cases has convinced us that thorough measures such as the Regulations call for are the only means of combatting this disease."

The evidence thus adduced regarding the value of a well-equipped hospital in the reduction of diseases and deaths seems so convincing and complete, that nothing need be added to it. In the autumn of 1901, smallpox caught the Ottawa authorities unprepared with hospital conveniences, with the result that within six weeks, forty houses were under quarantine with smallpox. Renovation of the old isolation hospital made their removal within a fortnight possible, with the result that, aided by a general vaccination, the epidemic was rapidly suppressed.

But relatively rapid as has been the development of public health ideas in Ontario in the matter of the zymotic origin of contagious diseases, it is apparent that the supplying of local municipal machinery for carrying out such ideas is greatly in defect of the urgent demands created by the presence of outbreaks of the several diseases. In truth, as in all our aspirations toward higher ideals, our efforts in this are ever falling far short in the results attained. What, of course, is the necessary primary requirement in all movements, onward or upward, is that absolutely clear conceptions of truth be held regarding the matter at issue. The good Spinoza says: "We may have general perceptions regarding matters of common report, more correct deductions when the perception is based upon experience, and still more correct perception when the essence of one thing is inferred from another perceived through the senses."

Hence, if we are to grow in a knowledge of method, to increase our ability to apply broad principles to the problems, which in public health matters seem daily more and more capable of being dealt with along the lines of pure science, it becomes of essential importance that we call to our assistance such an amount of knowledge, based upon actual experience, that we shall be able to indicate a line of action, in dealing with outbreaks of contagious disease, with the same calm certainty as to results, as when a certain volume of water, falling on a turbine through a given number of feet, is recognized as capable of producing a given amount of electro-motive force. Nevertheless, even in this latter consideration must be had for the efficiency of the dynamo or machine; and this is still more true in all work, like the executive part of public health work, where the human element forms so important a term in the equation. To him we have necessarily to look, if progress is to be possible, for a growing and ever clearer conception of what scientific truth is, and for the development of more systematized methods regarding its application to practical problems.

But what is even more to be looked for, is the enthusiasm begotten of that scientific altruism, which, even apart from its moral aspects, makes personal sacrifice in the interests of the public health, as necessary and inevitable, as that of the philosopher Pascal in the vale of Vaucluse, studying the laws of physics, of plain John Dalton on the Cumberland Hills, experimenting on the determination of the dew-point, or in his little laboratory at Manchester, working out the atomic theory; or of the immortal Pasteur, when exhausted

through his labors for the silk growers of his beloved France, he extended his philanthropy to those interested in the industry wherever situated, whether in France, Austria, or Italy.

What is seemingly inevitable is that, as with the apostles of an earlier faith, the bones grow dry, and the enthusiasm of the discoverer becomes the routine of his successor, who does the same work mechanically. As Horatio says of the grave digger in Hamlet: "Custom has made of it in him a property of easiness." To the apostles of experimental science, based upon new discoveries, public health must increasingly look for new and greater victories; but, as the lives of the early Christian Fathers must be read to illustrate enthusiasm and devotion, so the students of science must continue to return to the fountains, whence have sprung our streams of knowledge, if they are to continue that enthusiastic love of research and of truth, which has made the past of science, in its application to public health so glorious.

"And this to fill us with regard for man,
With apprehension of his passing worth,
Desire to work his proper nature out,
And ascertain his rank and final place,
For these things tend still upward, progress is
The law of life, man is not Man as yet!"
. . . . . .
"I could not,
Lest his success ran counter to success
Elsewhere; for God is glorified in man,
And to man's glory vowed I soul and limb!"
—Browning's "Paracelsus."

All of which is respectfully submitted.

(Signed) P. H. BRYCE,
Secretary.

CHAPTER III.

REPORT OF THE MEDICAL INSPECTOR OF THE PROVINCIAL BOARD OF HEALTH.

By C. A. Hodgetts, M.B., L.R.C.P., Lond.

To the Chairman and Members of the Provincial Board of Health:

Gentlemen: I have the honor to submit my First Annual Report as Medical Inspector of the Provincial Board of Health, covering a period of fifteen months, dating from October 1st, 1900, and ending December 31st, 1902.

The duties appertaining to the office have been heavy, chiefly owing to the many calls consequent upon the wide diffusion of smallpox, and the difficulties of diagnosis, arising from the continued mild character of the disease.

The work may properly be dealt with under the following heads:

(1) Smallpox inspection—
  (a) In organized municipalities.
  (b) In unorganized districts.
(2) Other sanitary investigations.

The work necessitated visits to municipalities either for the purposes of (a) diagnosis of suspected cases, (b) assisting the local authorities to enforce quarantine, (c) to stimulate them to more active work, and (d) to superintend in the unorganized districts the proper carrying out of the Regulations, and the quarantining of isolated cases of infectious disease.

During the fifteen months I have been absent from Toronto 277 days, and have travelled 25,000 miles and visited 176 municipalities.

Smallpox Inspection in Organized Municipalities.

Difficulties of Diagnosis: It is a regrettable fact, that after three years, with the continued presence of the disease in the Province, the difficulty still exists amongst members of the medical profession in arriving at a correct and early diagnosis of the mild cases, which somewhat resemble chickenpox, yet possessing sufficient clinical differences to make closer observation reveal their true character. I am of the opinion that many cases of so-called chickenpox, which have occurred in children and adults, have been smallpox of a mild type, and that there are many homes in this Province wherein lurks the infection of the latter disease. It should be the duty of all local health authorities, and all members of the medical profession, to direct that disinfection be as thorough after chickenpox as after smallpox, since failure to do so in the past has resulted in a widespread diffusion of the infection, which at any time may break out in the more virulent form.

Indifference to the Disease and to Vaccination: Owing doubtless to the low death rate attending the present epidemic, the greatest indifference is displayed by all classes in regard to the adoption of quarantine, and the enforcement of vaccination. In some few instances there has been considerable display of opposition when the true character of the infection has been pointed out, and active measures have been called for by the Provincial Board. Many persons express themselves as preferring mild smallpox to vaccination, dreading the inconvenience and loss of time so frequently found to follow primary vaccination in adult life.

It cannot, of course, be expected that these objectors are fully informed of the great danger the unvaccinated run when exposed to the disease, even

of the mildest type, of smallpox developing, in their case, into the severest form. Much less are they aware, on the other hand, that the successfully vaccinated are always protected, no matter how remote the operation, the degree of protection, however, varying with the number, size, and distinctness of the vaccination scars, the period at which the operation has previously been performed, and the natural immunity of the individual.

Vaccinal Protection: I have yet to meet with a case of varioloid (modified smallpox) in one person well vaccinated or revaccinated within seven years from the date of exposure; while many have been the instances where vaccination only once efficiently performed, even 25 to 30 years previously, has given complete protection, and of the modifying power of vaccination only once performed at a still more remote period of time, this, in one instance, being over 50 years.

That much unnecessary fear and alarm have been aroused against this highly important operation cannot be denied, and it remains with the medical profession and health authorities generally to re-establish confidence. To this end infant vaccination must be insisted on, and secondary vaccination before the children enter upon the wage earning period of life. For this purpose "glycerinated vaccine" alone should be permitted, and the use of the common ivory point become a thing of the past. With a view of still furthering the work, medical students should receive instruction in the technique of the operation of vaccination, a procedure, so far as I am aware, being at present generally neglected in the college course.

Abuse of Certificates: Another serious aspect of the situation, and one presenting great difficulties, is the fact that it has been for years a common practice amongst medical men to issue a certificate of vaccination at the time of performing the operation, without waiting the seven days wherein the virus pursues a certain definitely normal course, and upon which only can a certificate be issued. The number of such improperly certified vaccinations is very large, and it is time the practice was discontinued.

Compulsory Vaccination, its Failure and Remedy. The present method of carrying out compulsory vaccination seems to be quite inadequate to meet the requirements of our social conditions. It is found that the greater number of the employees of factories and workshops are called upon to submit to the operation, and that they resist, fearing a week or two's "lay off," for which they will receive no remuneration. School trustees, both public and separate, are alike somewhat reluctant to enforce the compulsory clauses of the Act.

To meet these difficulties it should be required of all employers of labor to adopt the Regulation applicable to unorganized districts, which makes it illegal for them to hire an unvaccinated person. If this requirement were preceded by one making it compulsory for school trustees to admit only vaccinated children to school, and to require certificates of secondary vaccination from all over ten years of age, this suggestion could easily be carried out. Such employees would not be affected at the wage-earning period of life, and we would soon have a well vaccinated population.

Isolation Hospitals: The prevalence of smallpox has forced many municipalities to provide temporary hospital accommodation for such cases, and in many instances this has been done by means of well-constructed double-walled tents, usually 15 by 30 feet in size. Although there were a few objectors at first amongst the patients to their entering these canvas hospitals, yet they have been found in every way to meet the wants of either a city or township. As isolation hospitals they are suitable to rural districts, because of their portable character; and for the towns and smaller cities, from

the fact that when not in use, they may be stored away from the public view; while their small cost is another important point for Local Boards of Health to remember.

Vaccination by Glycerinated Vaccine: The greater number of the vaccinations performed during the year have been with the glycerinated product, and on the whole, the results have been very satisfactory. Where the contrary has been the case, it has been due either to the operation being improperly performed, or to the inertness of the vaccine virus itself. To overcome this difficulty, it is quite evident there must be greater care exercised in the handling of the product, since exposure to heat, even for a short period, renders it inert. I am quite convinced that the accident often occurs in transit from the producer to the patient, the fault resting either with the postal department, the express company, the druggist, or the medical man himself, all or any of whom unwittingly may submit it to too great a heat. Hence, too great care cannot be bestowed upon it by keeping the place in which it is kept stored at a low temperature.

Local Medical Health Officers. While the work of the many Local Medical Health Officers in the past has been of untold benefit to the public, and while the public health of the Province has been greatly enhanced thereby it must not be forgotten that often it is performed at great personal inconvenience and financial loss to them. To expect a practicing physician to discharge the important duties of the office for a nominal annual fee, or often without any honorarium, is to expect too much ; and as a result, in cases of an epidemic, the duties are too often imperfectly performed. To meet this difficulty, and for the furtherance of Public Health work, the office should be made a county one, only those possessing the necessary qualifications being chosen to give their time wholly to the work.

Public Health Work in Unorganized Districts.

New Regulations. The introduction of the Regulations of 1901 met with the general approval of the companies concerned, these being especially the lumber companies. The changes thereby brought about by the Regulations were of such a radical character that had it not been for the experience of the previous season, when smallpox was rife in the lumber camps, the difficulties of enforcing the employment of a medical man, and that of vaccination, would have been greatly increased. An old-time custom had to be met, viz., the sale of hospital tickets, a custom which for many years past had afforded the shantyman hospital treatment at the minimum cost of five dollars per annum for non-contagious diseases. The plan, doubtless, was good to a limited extent, yet abused in so far that often the tickets were sold beyond the area of the hospital's usefulness. Now the men appreciate the great advantages derived from the camp hospital, and the untold benefits of a camp physician.

Vaccination of Employees. The enforcement of the regulation relating to compulsory vaccination has caused some inconvenience owing to laborers having been scarce ; but I am pleased to report that the proportion of unvaccinated has been so small that the danger of any serious outbreak in any camp has been averted. About 75 per cent. have been successfully vaccinated ; but this fact should not in any way prevent the yearly enforcement of the Regulations by the employers.

The improvement in the construction of the buildings and the sanitary location of the new camps is already apparent, and there seems to be a strong desire on the part of the firms operating in these districts to comply with the requirements of the Regulations.

As an indication of the good effect of the Regulations, I would state that so far this season smallpox has been reported in only three camps, and in each instance the outbreak was promptly dealt with by the company's physician, efficient quarantine being maintained, and the disease confined to these centres only.

As an illustration of what inspection has meant, the following will illustrate :

P. H. Bryce, Esq., M.D.,
Sec'y Prov. Board of Health.

Dear Sir,—I don't know whether a report on the operation of the Regulations for sanitary control in unorganized districts is required at the present time, however, I am pleased to report that the carrying out of the part pertaining to the medical attendance in this section has been almost a complete success. I have had charge of 28 to 30 camps, for seven different firms here and have had three assistants most of the winter. I had one very good general hospital in the woods and it was filled from Sept. 1st to April 30th and only one death during the winter. We had no appearance of smallpox during the season, nor of any other epidemic.

Yours truly,
W. S. Bued, M.D.

Sudbury Isolation Hospital. The marked improvement in the care of infectious cases happening in the lumber camps was shown by the small number of smallpox patients treated in hospital tents near Sudbury during the winter of 1901-2.

The total number was fifteen, two of these being men who had crossed into this Province from the State of Michigan while suffering from the disease, and for whose care the hospital had to be kept open for a longer period of time than otherwise would have been necessary. For the care of these patients the Dominion Government is indebted to the Provincial Board some $300.

As the Regulations place the responsibility for the care of all cases of sickness occurring in a camp upon the proprietor thereof, the cost of the hospital treatment of the smallpox cases has been charged against any company so responsible. I am pleased to state that so far this winter there has been no necessity for the re-opening of this hospital, and it is not probable there will be any further necessity for it.

Train Inspection at Pembroke and Ottawa. Upon the return of the first parties of shantymen from the Pontiac district, in the Province of Quebec, in the spring of 1902, it became quite apparent that smallpox had existed in the camps during the winter, and that there was danger of the infection being carried to the eastern municipalities. To meet this difficulty there were established two quarantine depots, one at Pembroke, and the second at Ottawa. The local authorities in both instances kindly placed buildings at the disposal of this Board, which were used for detention of the men, and disinfection of their persons, clothing, and effects. Four assistants were appointed to board the C.P.R. trains coming from the west and running into Pembroke, and the Pontiac & Pacific, and the Gatineau R.R., whose terminal is Ottawa. In this manner over twelve hundred men returning to points in this Province were vaccinated, each being detained until they were given a disinfecting bath, and their wearing apparel and effects fumigated with formaldehyde. The saving to the local authorities in the eastern portion of the Province can never be known : but, judging from the experience of other places in the previous year, before such measures were instituted at Sudbury, it must have been many thousands of dollars : for undoubtedly the infection was prevented from being carried by these shantymen from the infected Quebec camps. The assistance rendered by the Mayors and Corporation of the City of Ottawa and the Town of Pembroke, as also the Local Boards of Health, and the Medical Health Officers, was of the most cordial character, while the protection afforded these districts by the action of the Province was, it is hoped, fully appreciated.

Quebec Regulations re Camps. The adoption of similar regulations by the authorities of the Province of Quebec as those put into force in this Province materially lessens the danger for all time of infectious diseases being carried from the camps, and will, no doubt, obviate the necessity for train inspection at any time in the future. To further illustrate the value of this work and the appreciation of the Board's efforts, the lumber operators of the Ottawa district conferred in July, 1902, with the officers of the Provincial Boards of Health of Ontario and Quebec, and agreed to advertise that no unvaccinated men would be employed by any of them. Some 25 firms entered into the agreement.

Other Sanitary Investigations. The duties have been so heavy in the handling of smallpox that but little time could be given to outbreaks of other infectious diseases. I have, however, reported on three outbreaks of scarlet fever, and two of enteric fever, and trust that the information obtained, and the suggestions made, in these several outbreaks, have been of benefit to the local authorities.

In conclusion, I desire to thank the numerous Medical Health Officers, medical practitioners, and local authorities for their kind receptions and for the hearty manner in which they have generally co-operated with me in carrying out the provisions of the Act.

I have the honor to be, Sir, your obedient servant.

CHAS. A. HODGETTS,
Medical Inspector.

CHAPTER IV.

REPORT ON METHODS OF SEWAGE DISPOSAL.

At the First Quarterly Meeting of the Provincial Board of Health, held on January 8th, 1902, the Standing Committee on Sewerage presented a report on "Sewage Purification," which gave a *resumé* of the progress of sewage disposal in Ontario during the previous twenty years. After summarizing the results and indicating some of the principal difficulties which municipalities have experienced in dealing with the problem, the Report goes on to state:

"[illegible] sewage disposal [illegible] through practical knowledge of the [illegible] sewage [illegible] conditions likely to be suitable in any given case; as equally intelligent knowledge of bacterial and chemical problems necessary to keep the sewage in any given case in a condition most favorable for a rapid and natural decomposition by biological processes and [illegible] supervision of the right and proper kind in the oversight and management so that the [illegible] will [illegible] at least one particular plant so that economy in management with a maximum of good results may legitimately be expected."

"The municipal council, however, which by law is required to adopt such means as will prevent the pollution of the adjacent streams by its sewage, may very naturally ask: How are they to be expected to be experts in such things? The answer of the law is, that the means of abatement must be found by the person who creates the nuisance. It might further be said that a town should not erect industries until they know they can prevent them from becoming nuisances."

"All these answers might equally be given with regard to methods for dealing with contagious diseases, and perhaps with more reason, since there are some 2,500 trained physicians in the Province supposed to know all about how to deal with smallpox and other diseases. But as a matter of fact the Government, through this Board, gives constant and great service to municipalities through its officers and laboratory; and there can surely be no logical reason why, if it can be found practicable, in the more difficult and complex biological and chemical problem we are considering, some assistance should not be given, both to improve works already established and to advise in the operation of new works, which with our rapidly growing industries must from year to year be instituted."

"The coming year is likely to see the work taken up in three or four cities, smaller towns will be introducing sewerage, and your committee feels that a great step forward in the Board's work would be gained if the Board were placed in a position first to gain for itself all the available knowledge as to the methods being adopted elsewhere in working out these problems to a successful issue, and thereafter to give our cities the benefit of such knowledge."

The Report, after discussion, was adopted by the Board. When, two months afterwards, a deputation from town municipalities was received by the Government, and presented arguments and made a request that the Government should undertake some experimental work in the problem of sewage disposal, the Board's Committee, when consulted, naturally strongly urged that such work be undertaken, and that to this end a grant be made by the Legislature for the purpose. This year, as a beginning, a grant of $2,000 was placed in the Estimates, which amount has been more than exhausted by the work carried on by the Board at Berlin.

The following Report on the Disposal of Sewage has been prepared by Dr. J. A. Amyot, Director of the Laboratory of the Board, assisted by G. G. Nasmith, B.A., Chemist, who has aided greatly in the experimental work.

P. H. BRYCE.
Secretary.

REPORT ON SEWAGE DISPOSAL.

By J. A. Amyot, M.B.

To the Chairman and Members of the Provincial Board of Health:

Gentlemen,—Last spring a deputation, representing several urban municipalities, waited on the Government to ask that something be done in the way of experimental work to aid municipalities in the difficult problem they had to face in the disposal of their sewage.

They represented that inland towns were especially interested, that it was difficult to get reliable information with reference to different systems for the disposal of sewage, that this was made more difficult from the fact that different standards of purification were required, that all sewages were not alike, that some towns had manufacturing wastes that were difficult to handle, and that the natural conditions of each town were different, necessitating different procedures in disposal.

The Government laid aside a certain sum of money for investigation along these lines, and called on the Laboratory of the Provincial Board of Health to do the work.

Berlin was chosen as the place to begin in, as there existed there a greater variety of factories giving objectionable wastes than in any other town or city in the Province.

Spasmodic efforts had been made to dispose of its sewage, but with very little success. The sewage, practically untreated, was being discharged into a small creek, which became nearly dry during the summer, so that it became practically an open sewer, and was complained of as a nuisance by those living on the stream below the town. A suit was pending against Berlin on account of this. No other town presented so many problems, and there was none where the question was more pressing. It was accordingly chosen. On March 28th, your bacteriologist visited Berlin to look over the ground and formulate plans for the work. Five days were spent visiting the factories to learn their methods of manufacture and to find what wastes, in what form, and with what intermission, were being discharged into the sewers. The existing sewage disposal plant was also visited and looked over thoroughly. A week later he visited the Eastern States, especially Massachusetts, to investigate the methods of sewage disposal in use there. Three weeks were spent in this work.

On May 2nd, accompanied by the chemist, work was begun at Berlin.

At this time Berlin had at its disposal plant a septic tank of 60,000 gallons capacity, and two coarse gravel beds of 23,000 gallons interspace capacity each. The sewage reached the farm by gravitation. There was a general impression abroad that the sewage, on account of factory wastes, was non-treatable by bacterial methods. The septic tank was being discussed on all hands, and contact beds were the talk of the time. The problems then seemed to be: Is the sewage treatable? What is the value of the septic tank? What will contact beds do with this sewage? What is the best material to make these beds of? How large should the material be? etc.

Fourteen acres of intermittent filtration beds, of a poor material, being chiefly clay, were being used. Some of the beds were being cropped. The effluvia about the farm were disagreeable. The beds were in bad repair. The effluent passing into Schneider's Creek was very bad-looking, and of sufficient quantity to render the water quite opaque and blackish in appearance and very offensive in odor.

A laboratory was established in the town in a large room provided by the municipal authorities. They also supplied town water. The laboratory was fitted up by us with tables, plumbing and gas fixtures, and a gas meter. There were many aggravating delays in getting apparatus and chemicals, so that the laboratory was not in running order until June 26th. To test the possible germicidal effect of the gas-works liquor on the sewage, a septic tank of 600 gals. capacity was put in 200 feet above the gas-works, another of the same capacity some two hundred yards below them on a by-way from the main sewer. The cleaning out of the town's septic tank at the farm was begun, also the construction of an 1,800 gal. septic tank, that could be more easily controlled as to flow, etc., than the large town tank. After this, the construction of four contact filter beds was begun to test the value of different sizes of materials and different materials ; to control the capacity, each bed was made independent of the other; and, finally, a continuous filter after the Stoddart model was put in. As the town's gravel beds were found to be completely sludged up, and could not be filled in less than six hours with the means at disposal, they were abandoned as part of the experiment.

On May 27th we were able to start the uptown septic tanks, but not those at the farm until June 25th. The beds (the three gravel ones) were finished later, and put in operation on July 2nd. The coke for the fourth bed did not arrive until August 2nd. The bed was started on Aug. 6th. The cinder continuous treatment bed was put in operation on July 31st.

The experiments were carried on most vigorously until Oct. 4th, when they were discontinued and the laboratory moved back to Toronto, the beds being left in charge of the town's employees to be continued in their operation.

Sewage and Methods of its Examination of It.

In dealing with the problem, the first question naturally arising is, What is sewage? Two kinds are usually spoken of, viz., "Domestic Sewage" and "Manufacturing Wastes." Sewage is the liquid contents of a sewer, made up of human and animal excreta (faeces and urine), kitchen, house, personal and clothing washings, and, in some cases, even street washings. It contains, as a rule, not more than 150 parts of solids per 100,000, or 105 grains in one gallon, and of this only about 55 parts are of organic material, the rest being mineral substance. It is, consequently, not practically burnable as garbage, consisting of old vegetables, dead animals, chips, old paper, rags, etc., would be.

The organic matter is half in suspension and half in solution. The latter, of course, cannot be screened out to burn, and is even more putrescible than that in suspension.

Domestic sewage looks much like dirty dish-water, and contains fatty matter, soap, bits of paper, some rags, more or less finely divided, remains of meat, and vegetables and fruits, starches, sugars, and mineral matter, even wood dust, sand, etc. The organic matter of these substances is variously putrescible, and this by different agencies; fats being by one, sugar and starches by another, and the various proteids yet by others. The mineral matters do not enter into the question, except mechanically. It is this organic matter that has to be disposed of in the various processes of "sewage disposal." The wastes from factories are as varied as manufactured articles are. Even with the same product, as the processes of production vary the wastes vary, as, for instance, in the process of tanning sole leather, shoe-top leather, harness leather, glove leather, etc., are produced.

All these are subjected to different processes. The wastes from all these necessarily should vary, and do vary. The wastes of many factories have mineral matter and organic matter in them. This last is what is to be treated. In the mineral matter there are usually substances which interfere more or less with this treatment.

In connection with the varying composition of sewage, there is variation with the time of day in domestic sewage, even as to composition. In that of the morning, there is more organic matter present, and less at night. Monday is the usual washing-day. Sewage varies thus with the days of the week; but this variation is especially a fact in manufacturing wastes; totally different substances are being discharged into the sewers from hour to hour even, as well as on different days. Sunday is a free day usually. All these changes and variations have to be taken into consideration in any plan of disposal adopted to get anything like uniformity of treatment.

On the whole, wastes originating from animals and their tissues, though more objectionable and harmful, are more easily disposed of than the wastes from vegetable life. Organic matter may come from diseased animals, and may thus convey disease. The excreta from healthy individuals may give rise to sickness. This organic matter putrefies, giving rise to odors that are objectionable and injurious to health, and in this process of putrefaction gives rise to poisons. Organic matters, other than animal in origin, that are putrescible, may also give rise to more or less poisonous substances. Hence discharging sewage into drinking water, either for man or animals, is objectionable, and to be avoided if health and life are desired. Putrefaction, rotting or fermentation is Nature's method of getting rid of all this organic substance. When this process is complete, nothing is left but mineral matter. It is objectionable in the intermediate stages. No sewage is completely purified so long as there remains anything in it that is putrescible.

Sewage disposal is then really the mineralizing of organic matter. This is done in Nature by the agency of those minute microscopical vegetables, the bacteria. Practically no putrefaction takes place without the agency of these microbes.

Methods Used to Arrive at a Discovery of the Composition of Sewage.

Gauging the Flow.—This is as important as to know the quality of a sewage in order to arrive at an estimate of the amount of plant required to treat a given sewage. The flow varies at different hours or on different days, and at different seasons. The dry weather sewage is the usual standard to go by, because it gives more nearly the organic strength of the sewage, and this is what is treated. The sewage in wet weather is subject to so many variations that it is difficult to measure the amount of water diluting it, since the rainfall varies greatly. A light, though continuous, rainfall may give the same amount of water as a sudden summer shower, but will affect the sewers quite differently. One will flood them out; the other will sink into the earth, and, perhaps, not add much to the sewer contents. The dry weather sewage, since this is usually in the summer months, has also another aspect, especially in inland towns, viz., the carrying away of the sewage by smaller and smaller stream flows, thus giving rise to more and more nuisance. Direct measuring with measures of known capacity in a given time is a simple method where the flow is not too great, as, for instance, a hotel or institution, a small hamlet, etc., and is sufficiently exact, provided reasonable care be taken with the time and the accurate filling of the measure, and the measurements be taken over a

sufficient period of time. For large quantities, as in cities or towns, weiring of the main sewer is the simplest method, and accurate enough. This consists in causing the whole flow to pass over a sharp-edged horizontal right-angled dam or weir of known height, and measuring the depth of fluid over the weir at intervals to get an average, at the same time using weighted floats to learn the rate of flow.

With these data, viz., the length of weir, the height of fluid flowing over the dam, and the rate of flow in a given time, there is no difficulty in arriving at an estimate, at least of the flow in the twenty-four hours.

Taking Samples for Examination.—To be accurate, these should be taken at frequent intervals (half-hours or hours), and always in a quantity corresponding to the flow at the time of taking. There is not always time to do this, nor is it always possible to get labor sufficiently intelligent to make such varying quantity collections, so that it is usual to collect a stated quantity at regular intervals. These are poured into a large bottle or receiver, and kept in the cold, ice being used if necessary, until carried to the laboratory. The examinations are made from aliquot portions of this. It is hardly necessary to mention that the greatest care should be taken in having all receivers "chemically clean." Decimal parts in a hundred thousand are being dealt with.

Terms Used in Speaking of Sewages.—The term "raw" is used for sewage as it leaves the house or the factory, and "stale" is such as has been in the sewers some time, and has undergone some changes, evidencing this in its acquired odors and changes in appearance, and is such as is found at the outlet of a main sewer. "Septic" is a sewage that has undergone a considerable anaerobic bacterial change. "Affluent" is the sewage of whatever character going into or on to any sewage disposal plant. "Effluent" is sewage as it passes out of this apparatus, whether a screening chamber, a septic tank, or a treatment bed of whatever kind.

Temperature.—This is taken of both the "affluent" and the "effluent." It is one of the gauges of the treatment or chemical changes taking place in the apparatus. Chemical changes are accompanied by changes in temperature. In the case of a sewage disposal apparatus, allowance should always be made for the surrounding temperature, warming in summer and cooling in winter. Sewage does not freeze as quickly as pure water, nor does it, when frozen, form as solid ice water does.

Turbidity.—Under this heading, the sediment and the scum are chiefly taken note of. As the scum may be fat, oil, tar, or wood fibre, this has to be taken into account, from their behavior in reference to treatment of bed surfaces. The sediment is gravel, or what? This is dried and the weight for quantity estimated; then incinerated for estimation of the volatile or organic substances, and the mineral remains, or ash. This gives an estimate of the amount of the total organic matter to be treated, without reference, of course, to its quality, and is usually slightly over one-third of the total solids. Another estimate is made with the scum and sediment, viz., the quantity of matter in suspension and in solution. Both of these dried show the total of each. When incinerated they show the organic and the mineral matter in each.

Usually about half of the organic matter in a sewage is in solution, the rest in suspension. The variation in the mineral matter is greater. Sometimes less than half is in solution, generally much more than half. The microscopic examination of the sediment is sometimes of considerable value, as showing vegetable and animal remains present, aside from living plants and animals.

Color.—This is of the greatest value in telling us what is coming down with a sewage and as indicating when certain substances are coming; since, especially when there is much manufacturing waste, there is much variation in the quality of a sewage from hour to hour. The red-brown color of tannery waste may be taken as an example of this, or, again, the presence of certain dyes. Where "selective" methods of treatment are in use this is especially of value as indicating when to treat one portion and when another. These colors have to be noted and learned for each sewage, because two combinations are rarely alike.

Changes of Color.—These in a sewage in process of treatment are worthy of note also. For instance, at Berlin, during our experiments, the first indication of septic action in the tanks, and afterwards of oxidation in the beds, was shown in the changes of color undergone by the tannins of the sewage. When all the tannins are not removed in an effluent, and it enters a stream, no reaction may be produced; but, as happened in Berlin, a valuable indication was given of the presence of iron in the receiving creek, by the immediate blackening of the water and effluent mixture.

Odor.—Stale, septic and treated sewage have their own odors, and these with any given sewage may be useful in indicating what is going on in it. The effluent from a sewage disposal plant should have either no odor at all or only a slightly earthy one. Anything else shows deficient or incomplete treatment.

Reaction.—Sewage is generally neutral. It may be alkaline or acid. In chemical treatment, it is essential to know this, e.g., when lime is the treating material, if the sewage is neutral or alkaline, the lime that will be used will be all towards precipitation; if the sewage be acid, enough will first have to be added to reach the neutral point, then more added for the precipitation. More efficient treatment can be done in this manner, for an excess of lime does not mean more treatment, because some of the organic matter is redissolved in an excess. Watching the reaction conduces to economy also. Two indicators are used, phenophthalein in solution, producing a bright red in alkaline substances, and blue litmus in solution producing a red color in acid solutions. The solutions are kept in "drop-bottles," and, when required, are sprinkled on the sewage as it passes, giving distinct color reactions.

Gases Produced.—There is a movement at present to make this a test of the working of a sewage plant, especially in the septic tank department of it, from the fact that in this test a great deal of the organic matter is converted into gas. It is certainly valuable, but other compounds are formed as well as gas, being a sort of priming or formation of simpler compounds from the organic matter which will later be more easily oxidized when they reach the oxidizing beds proper. These gases can readily be gathered by just sinking below the surface of the sewage the mouth of a large funnel, to the spout of which is a tube carrying the gas into a proper receiver. The usual gases gathered are CO^2, CH^4, C^2, H^4, CO, H^2 and N^2, H^2S, or $(N H^4)^2$, S may be present, and, perhaps, others; also ammonia is left in solution.

Free Ammonia.—In perfectly fresh sewage this, except accidentally, is not present; but the substances out of which it is formed by a process of hydrolysis in the progress of fermentation are. Of these, urea, one of the chief nitrogenous constituents of urine, gives origin to most of it. Higher nitrogenous organic compounds also give rise to it in the process of their decomposition. Ammonia is very soluble in water, and, consequently very little of it escapes into the air. The quantity of this gas present in a sewage

or a water is an estimate of the nitrogenous organic matter already decomposed. Its presence is shown by treatment with a standard solution of the iodide of mercury (Nessler's solution), and .008 mgm. of ammonia, in 50 cc. of water can be shown by this method. The process is called Nesslerizing. It is a colorimetric method, and depends on the comparison of the solution in question with a series of standard ammonium solutions, treated by the same agent (Nessler's solution). The color is a yellowish brown. In the examination a fixed quantity of the sewage is taken. It is usually necessary to dilute this with water—(of course, distilled ammonia free water is necessary)—generally one in fifty parts. It has been recommended to examine, without any further preparation, in 50 cc. Nessler tubes. However, it is usual to distill off the ammonia by boiling. This is said to alter the organic matter present, but hardly seriously. The free ammonia usually comes off in the first 150 CC. of the distillate; what sewage is left in the flask is then treated to obtain the albuminoid ammonia.

Albuminoid Ammonia. It is no special form of ammonia. It is simply ordinary ammonia, obtained from a water or sewage by a chemical decomposition of the not yet completely altered, or the unaltered albuminous or proteid matters present. This albuminous substance constitutes the greater part of the nitrogenous substances present in a water or a sewage. It is probably the most important substance, estimated by ordinary laboratory methods in water or sewage examinations. It is this proteid portion of a sewage that gives rise to most of the trouble experienced from the pollution of a water supply. It is chiefly on the percentage removal of this albuminous constituent that an estimate of the efficiency of any sewage disposal plant is made. It is computed by estimating the quantity of ammonia recovered by distillation and Nesslerization after the decomposition of the albuminous substances by the action of a strongly alkaline solution of permanganate of potash, with the application of heat.

Oxygen Consumption.—This is, after the albuminoid ammonia, the next most important estimation made in the examination into the quality of any given sewage. It represents the proteids plus the carbonaceous materials of the organic constituents of the sewage. It simply represents what is oxidizable in a sewage. Instead of using free oxygen, which would be difficult to handle, there is used a substance, permanganate of potash, which contains a fixed quantity of oxygen, that it will give up when in reaction with organic substances. There are organic substances which this process will not reveal, and also mineral substances with which it reacts; but, in spite of this, and this is only a very small source of error, it is a very valuable point in the estimation of the constitution of a sewage, and again in estimating, by the disappearance of the substances which give rise to the reaction, the value of a disposal system. In procedure, the permanganate is made into an accurate standard solution. The sewage is taken in a fixed quantity, and boiled with a solution of sulphuric acid, and then treated with an excess of the permanganate solution, while boiling gently, for three minutes. Sometimes the estimation is made in the cold, using hours instead of minutes. Each has its advantage. The three minute method is most frequently used in laboratories. This is then decolorized with an oxalic acid solution, which also is a carefully standardized one, and again titration with the permanganate solution is done until a permanent pink color is produced. The oxalic acid corresponds to a certain quantity of permanganate of potash. This is estimated, the remainder of the permaganate used represents how much oxygen has gone into the organic matter of the sewage. This is what is meant by oxygen consumed.

Chlorine.—This is estimated by titration against a standard solution of nitrate of silver, using chromate of potash solution as an indicator. It represents chiefly the common salt present in the sewage. When not used in manufacturing processes it is chiefly from the urine, and allowance must be made for the kitchen as a source of it. In sewage examination, it is not of so much value as in water analysis. Its chief use in sewage examination is as a measure of dilution, especially when the effluents enter small streams. For instance, if the chlorine contents of a stream above a sewer inlet is known, and the chlorine of the sewage entering is also known, by examining the mixture far enough below the sewer entrance to permit of thorough mixing, a very accurate estimate of the dilution is found.

Chlorine is not materially removed by treatment. It is usually present as sodium chloride or common salt, in solution, and is a harmless mineral compound.

Nitrites and Nitrates.—These are the end products in the treatment of the nitrogenous substances of the sewage, where part of the treatment is oxidation. In the management of sewage treatment beds, these are taken as the evidence of efficient oxidation in the beds. In one of the overworked town beds in Berlin, on examining the effluent, no nitrites or nitrates were found, and all the albuminoid material was removed. Free ammonia was found in very large quantity. A complete septic tank treatment had taken place, with no oxidation of the ammonia produced.

In septic sewage no nitrates are found, but occasionally a trace of nitrite.

In examining for nitrites their presence is shown by a colorimetric method, with an acid solution of metaphenylene-diamine, against standard solutions of sodium nitrite in Nessler tubes.

In examining for nitrates, we have been in the habit of using electrolysis, by means of a zinc-copper couple, to decompose nitrites and nitrates into ammonia, estimating this, subtracting the original free ammonia content of the sewage, and also the quantity corresponding to what nitrite has been found by the previous method. Then, by converting the ammonia formula into free nitrogen, we express the result as nitrogen present as nitrates, without any reference to the form found. When we have added the free ammonia, the albuminoid ammonia, the nitrites and nitrates together, we have the greater part of the nitrogenous compounds of the sewage accounted for. The remainder is of such a kind that it is with the greatest difficulty decomposed. It is often found in beds where active oxidation is going on, that the albuminoid ammonia in the effluent is in greater quantity than was present in the affluent. It is probably out of this remainder that, by oxidation, the additional albuminoid ammonia is formed. This very stable nitrogenous substance is now converted into such albuminous substances as are capable of being converted into ammonia by the action of the alkaline permanganate of potash solution used.

The presence of this remaining nitrogen may be shown by the Kjeldahl method, which, by the action of continued heat and strong sulphuric acid, converts all the organic nitrogen of the sewage into free ammonia. This is then estimated, after neutralization has been accomplished, with 25 per cent. sodium hydrate solution by nesslerization. The original free ammonia is subtracted; the remainder represents the albuminoid substances, the nitrites, the nitrates and this above-mentioned nitrogenous remainder, and is all classed together and called the organic nitrogen of the sewage.

Bacteriological Examination—The ultimate decomposition or disposal of a sewage is by bacteria, whatever method of disposal we adopt. There

are numerous varieties of them. There are varieties, probably, for the decomposition of each of all the organic compounds found in a sewage; some for each sugar, each starch, each fat, each proteid, and so on, divided into two great classes. The anaerobic bacteria are those performing their function in the absence of oxygen by a process of hydrolysis, while the aerobes are those requiring oxygen for the performance of their function by a process of oxidation.

The bacteria are gathered up by the sewage from all directions. Bacteria are practically omnipresent. In a plant where septic tanks are used, the conditions favoring the anaerobes are present, a process of selection by circumstantial surroundings takes place, and the anaerobes thrive. The aerobes are not killed out, but are simply rendered dormant, as it were. When the effluent passes from the septic tank on to an oxidizing bed all the conditions are present for a free supply of oxygen; the anaerobes become dormant; the aerobes now thrive, being selected in turn by their circumstantial surroundings. The chief bacteriological examination made in sewage work is counting the bacteria in a given quantity of a sewage. One cubic centimetre is the standard quantity. This is with the object of finding the nutritive value of a sewage. The more rich in organic matter, the more will such a liquid support. As sewage passes through the successive parts of a disposal plant, the number becomes less and less, until finally we count them in thousands only in a good effluent, whereas in an ordinary stale sewage we may find as many as 15,000,000 to 30,000,000 to one cubic centimetre of fluid. The counting of the bacteria has another object, and this is especially the case in dealing with manufacturing wastes. It is to see if the particular sewage is inimical to the growth of bacteria, and as to whether it is consequently in its present state a treatable sewage by the bacterial method, or of finding if by some special process of handling it might not later be made into a treatable material for the bacterial method, the ultimate one in any case.

Bacteria crowd each other out; but it is still a question whether pathogenic, or disease-producing, bacteria are killed out in a sewage disposal plant. The nearer the effluent from the plant is to pure water, the less it will support these bacteria, and the sooner will it ultimately starve them out.

Bacteria from sewage are counted by a process of plating with a favorable medium for the growth of the bacteria. It is necessary in most cases to dilute. This is usually done in water previously sterilized. By experiment, the dilution is got down to where not more than 250 or 300 bacteria are contained in one cubic centimeter of the diluent. Many colonies growing on a plate of culture-medium inhibit each others' growth. The growths are usually made at 18 to 22 degrees C. of temperature, and under aerobic conditions only. This, of course, is error in the case of septic tank contents. These must be grown under anaerobic conditions, but such are extremely difficult and awkward to maintain. The more complicated a method, the more the chances of error to creep in are, and on account of this anaerobic cultures are not frequently made.

Degree of Purification Required of a Good Disposal Plant.—The ideal of course, is pure water, such as could be used with absolute safety as a drinking water. This is not possible by any of the methods now in vogue. The intermittent sand filtration method has come the closest of any method to this goal. No person has been found daring enough yet to recommend even this sand effluent as a drinking water, though from a chemical standpoint, much worse waters are habitually drunk without harm. In the case of a sewage effluent, though, we are dealing with something that is removed

from pure sewage by too small a margin. We cannot yet be assured that pathogenic bacteria have all been killed out in the passage of the sewage through the beds.

Nature has her methods of purifying polluted waters. Water-courses are depended on for drinking water. It is in these where Nature does her work. She needs time, though, to do it. When too much to do is put upon her, she simply deals with what she can and passes the rest on. Is a city or town at that point on a stream or river where she is passing the work on to be gone at later? This city or town, if it attempts to use the stream or river water as a drinking water, gets unaltered, or nearly unaltered, sewage, and we know this means typhoid fever, diarrhoea, etc., etc. So that now, when we consider the work a sewage disposal plant will be required to do, we shall have to think of the requirements of the stream receiving the effluent. Is the water to be used for drinking purposes, either for man or animals? It is as necessary to have good water for animals as for man, because animals used as food by man must be in sound health to become good food, and if they drink sewage water, we cannot be sure that they will be in good health. Where much dilution can be obtained, the sewage is soon rendered nearly harmless. Is the water body a running one or, like a pond or lake, a comparatively stagnant one? Mixing does not take place quickly under these circumstances. Then, how far below the outlet is the water used for drinking purposes?

When a water reaches that point where it is to be used for drinking purposes, chemically it should not have more than .005 parts of free ammonia, or .023 parts of albuminoid ammonia, or .740 parts of oxygen consuming material to each 100,000 parts of the water. When this is taken into account, with a small stream receiving much sewage, the requirements from the sewage disposal plant are great. For instance, a disposal plant emptying its effluent into a stream which during dry weather does not send more than three times more water than sewage, would have to show such an efficiency that at least not more than .015 parts of free ammonia, .069 parts of albuminoid ammonia, and 2.220 parts of oxygen-consuming material per 100,000 be found in its effluent, and that this be non-putrescible.

If the stream, at its smallest capacity, were larger, say, sending for dilution ten times more water than sewage, then the plant's efficiency could pass whilst allowing .05 parts of free, .230 parts of albuminoid ammonia and 7.40 parts of oxygen-consuming materials to pass into it.

In the Eastern States, if the flow equals fifty times the quantity of sewage, the sewage is allowed to pass with a less complete treatment into the stream, but always with a protest, especially if a town is situated at a short distance down stream taking water from this source. It is difficult to set up a general standard; each case must be taken by itself, and, from circumstances, a standard made for it, always keeping in sight the fact that no drinking water should have more, under ordinary circumstances, than .005 parts of free ammonia, than .023 parts of albuminoid ammonia, and than .740 parts of oxygen-consuming material per 100,000 parts. A really good water would contain near what a Lake Superior sample would show, viz., of free ammonia .003 parts, albuminoid ammonia .005 parts, and oxygen-consuming material .115 parts per 100,000. It is to be understood that the effluents spoken of must be practically non-putrescible when entering the stream.

Fixed standards for purification have been made. For example, the Mersey and Irwell Joint Commission class as good an effluent, which absorbs less than .142 parts of oxygen and which evolves not more than .142 parts of albuminoid ammonia per 100,000.

The Inspector of the Ribble Joint Commission classes as good an effluent if the albuminoid ammonia liberated is below .1 part in 100,000, provided suspended matter is absent and the presence of nitrates is confirmed.

The Derbyshire County Council defines a good effluent as one which contains less than .1 part per 100,000 of albuminoid ammonia and which contains more than .5 parts per 100,000 of nitrogen as nitrates, and one which subsequently does not undergo putrefaction.

The oxidizable matters from factories not dealing with animal substances are often not harmful; in fact, in many cases, are not even putrescible, so that standards must be flexible.

On the whole, the Irwell Joint Commission's standard for an effluent is the one generally accepted, viz., .142 parts of albuminoid ammonia and .142 parts of oxygen consumed per 100,000 parts, provided it is non-putrescible in a week.

Constituents of Sewage.—Organic matter may be conveniently divided into three classes—carbohydrates, fats and proteids. These substances, in Nature are decomposed bacteria, and probably each compound has its own decomposing variety of bacteria.

The carbohydrates, such as cellulose, starches, and sugars, as also alcohols, certain organic acids, as lactic, acetic, etc., are acted on by microbes, sometimes converting them directly into gases, such as hydrogen, carbonic acid gas, methane, e.g.:—

$$\text{(Cellulose)},\ C_6H_{10}O_5 + H_2O = 3\,CO_2 + 3\,CH_4\ \text{(methane)}$$

or by a more gradual method, forming intermediate compounds, each simpler than the original, and the former, gases being disengaged, until finally all is converted into gas and is diffused into the surrounding air, e.g.:—

$$\text{(Starch)},\ C_6H_{10}O_5 + H_2O \quad C_6H_{12}O_6\ \text{(sugar)}$$
$$\text{(Sugar)}\ C_2H_{12}O_6 = 3\,CO_2 + 3\,CH_4.$$

Or the sugar may be converted into alcohol and carbonic acid, the alcohol in turn into aldehyde and water, this last into acetic acid, and this even into formic acid, and this finally into carbonic acid and water. In this way the original substance is gradually reduced in quantity, and finally all goes into the air. These processes take a very short time, twenty-four hours, or even less, under favorable circumstances, is enough for their accomplishment.

The fats are also decomposed by bacteria. This is why fats become rancid. Fatty acids are set free. Of these, some combine to form soaps with any free alkalies that happen to be present in the sewage or surroundings; others are further simplified by oxidation, and may finally be completely gasified. The glycerine that is left is soon decomposed into gases. The soaps are decomposed, and further changes take place in them until finally all the fat, step by step, is gradually removed. The process is more tardy than that dealing with the carbohydrates, and we will see later the effects of this in the treatment of sewage and in the handling of the disposal beds.

There are also proteids and proteoids, including the various albumins, myosins, gelatines, keratins, and such nitrogenous derivatives, as albumoses, lysins, lecithin, creatins, tox-albumins, ptomaines, leucin, tyrosin, glycin, urea, indol, skatol, etc.

This last class makes up the nitrogenous portion of organic matter. It is the part directly coming from living tissues. These substances are highly complex, and of the organic substances this division is the most important. It is the portion that gives rise to the most disagreeable and noxious odors and to the many poisonous products that are derived from putrefying

organic matter, e.g., in canned meat and game and fish poisoning. As the bacteria which decompose these complex substances are varied, their products are also varied. The gases produced from these substances are ammonia, nitrogen, carbonic acid, carbon monoxide, oxygen, hydrogen, and ammonium sulphides, and various very offensive aromatic gases, e.g., thio-alcohols, mercaptans, phenols, etc. The production of these gases is varied by, apparently, at least, very trivial circumstances, e.g., little differences in temperature, reaction of medium, slight changes in composition of media, etc. These conditions are not all known. Bacteria are present practically everywhere. Nothing we touch is free from them. If the tissues of fruit or animals are injured or killed, and these bacteria can gain access to the affected parts they immediately begin the process of disintegration. The result of their work is the removal of so much now useless organic material in its original form. Gases are formed which go off into the air, while the remainder is liquefied; other compounds are formed and again other gases. So the process goes, until finally there is practically nothing left but the mineral matter. This is Nature's method of getting rid of useless organic and encumbering matter. These gases are not wasted, for they are taken up by plants, and again by a step after step reversal of the process taking place, the elements are brought back to living tissues, gases and minerals to plants, plants to animals, animal tissues back to gases and minerals, and so the cycle is completed.

Now, in sewage disposal all these processes are brought into action in the ideal method. The organic matter is decomposed, the products form food for plants, the plants form food for animals, and so around again. The complete process, that of land-irrigation for crop-raising is under some circumstances, though desirable, a too expensive method. We are then satisfied with gasifying and mineralizing the matter, thereafter discharging it into water-courses, and allowing it to become food for water plants, and these to feed fishes, which are returned to us as food. It is often said that it is wasteful to cast this refuse into water-courses, and thence into the sea. This plant and afterwards fish-feeding phase has been overlooked.

In sewage there is fertilizing material; but it is present in a relatively small quantity. The process of separating it in any quantity for this purpose may be too expensive. There are much cheaper methods of getting the same amount of nutritive material for plants. The idea prevalent of being able to make money out of sewage disposal by any of the present methods has been responsible for a great deal of misunderstanding, and has been a hindrance to sewage disposal as a principle.

Methods in Use to Dispose of Sewage.

Various methods are in use for the disposal of sewage. They all have good points about them, and some bad ones also. None of them is perfect. Most of them are based, though, at one time this was not known, on the action of bacteria for their success, and, of course, the methods that give the most favorable circumstances for their growth give the best results. Other methods are used, e.g., chemical precipitation, but ultimately bacteria are called on, even here, for final removal. This method is simply temporizing. One method is applicable to one place, another to another, according to natural advantages or disadvantages existing at the place of disposal. Some places have sand, some have not; some can use gravity to carry sewage, others have to pump; while some have plenty of space, others have it contracted. Such methods as the following have existed:

(a) The Indian moves away when an encumbering amount of sewage accumulates, and pitches his wigwam elsewhere.

(b) It is thrown on the soil in the back-yard. A great part of it sinks into the earth, and so long as it can filter through and run away to give a chance for the next deposit to do the same all may be well. But unfortunately the land, as a rule, soon becomes water-logged; the water, with its contained sewage, is retained, and soaks further and wider into the earth, and if a well happens to be close at hand, enters into it. Now, this water-logged earth forms a continuous medium for bacteria to grow in, and, if by misfortune, disease-producing organisms happen to reach this soil, they will have a fair chance, through this continuous water stratum, of reaching the well to be drunk with the water. And even though disease organisms do not penetrate by this process, organic matter in solution getting into a well gives food material for bacteria, if any should be present. An ideal pure drinking water is one that contains so little organic matter, or the derivatives of it, that it is unsuitable as a food material for microbes. The organic matter in a water is chiefly harmful from the fact that, on account of its nutritive quality for microbes, it may encourage their growth. Bacteria falling into pure water through dust, from drippings from well-tops, etc., may be killed out in a few days; but if the water have organic matter in it, and this only in decimal parts, even in a million, the bacteria thrive and multiply rapidly, and if they be disease-producing ones, produce disease in those drinking it. There is another objection to this system, viz., the odors emanating. These may be only disagreeable, but, unfortunately, many of them are harmful to health; not of themselves producing disease, but are auxiliary to some "efficient" cause in that they lower the general health and vigor of the body. One would think, when passing through the country, from the filthy appearance of yards and barn-yards, that our farmers had come to the conclusion that it was good for their cattle and themselves to have these odors about. They drink bad water and smell bad odors, and they suffer for it, though they should be the healthiest people in the land.

The difficulty underlying this method is that, from a small piece of land much more work than can be done by its bacteria is expected. What the land cannot treat accumulates. The bacteria, overfed and then bathed in their own products, are killed out, just as the acetic acid in vinegar production, when it reaches a certain percentage, at first checks and then kills out the acetic acid bacilli. Now, if circumstances become favorable, e.g., the temperature increases, dry weather comes on, or drainage is brought about, the bacteria grow again, and bad odors commence. If the conditions continue favorable all the organic matter may thus be got rid of. We shall find later that the principle has its application in the periods of rest given to working filter beds.

(c) Discharging Sewage Into Water Courses.—Here, again, we depend on the action of bacteria for the removal and treatment of organic matter. These bacteria are present in the water, being carried in by the sewage. But the sewage undergoes certain changes, aside from the action of bacteria, from admixture with the water. The brown waters from north of Lake Superior lose their color in a very short time after reaching the lake. The lime and other salts in the lake and bay water, or those in the river water, along with the active oxidation which goes on from the great quantities of oxygen dissolved in the waters of these great bodies, quickly precipitate it, while at the same time it carries to the bottom by gravity with it suspended particulate matter. Here it is attacked by anaerobic bacteria, and is either completely gasified or liquefied: a process of hydrolysis taking place. A molecule of water enters into that

of the compound, disruption takes place, and simpler compounds are the consequence—thus:

(Albumen) $4\ C_8H_{15}N_2O_3+14\ H_2O=4\ N_2+19\ CH_4+13\ CO_2+2\ H_2$.
(Urea) $CO\ (NH_2)_2+H_2O=CO_2+2NH_3$.
(Cellulose) $C_6H_{10}O_5+H_2O=3\ CO_2+3\ CH_4$.
(Starch) $C_6H_{10}O_5+H_2O=C_2H_{12}O_6$ (sugar).
(Sugar) $C_2H_{12}O_6=3\ CO_2+3\ CH_4$;
Or, $C_2H_{12}O_6=2\ CO_2+2\ C_2H_6O$ (alcohol).

Thus the matter is reduced in quantity; the liquefied portion may be reprecipitated and again acted on by the bacteria, while other portions of it are oxidized. By the intervention of aerobic bacteria, the organic matter by the ferments which the bacteria form, is put into such an unstable condition that it takes up the free oxygen presented to it. By this entrance of the oxygen into the compound, changes are brought about in it; new combinations are formed, the original molecule is disrupted, while from a complex molecule more or less simple ones are formed. Thus:—

(Albumen) $C_8H_{15}N_2O_3+19\ O=8\ CO_2+6\ H_2O+N_2+H$;
Or, (Ethylamine) $(NH_2)\ C_2H_5+HNO_3=C_2H_5OH+H_2+N_2$ (alcohol).
(Alcohol) $C_2H_6O+O=H_2O+C_2H_4O$ (aldehyde).
(Aldehyde) $C_2H_4O+O=C_2H_4O_2$ (acetic acid).
(Acetic ac.) $C_2H_4O_2+O_2=CO_2+H_2O+CH_2O_2$ (formic ac).
(Formic ac.) $2\ CH_2O_2+O_2=2\ CO_2+2\ H_2O$.

It must not be understood that these are the exact compounds or the only ones found, since many others may be found. Various bacteria have the power to form each their own compounds and combinations. In these processes such acids as nitrous and nitric are found. These combine with bases, as lime, sodium and potassium in the water, and form, the nitrous acid, the nitric acid, with nitrates, the end-products of nitrogenous compounds. Ordinary water at the point of saturation holds only 7 cc. of oxygen to each litre, which is soon used up.

When much sewage is being decomposed, a great deal of oxygen is required for these oxidation processes. This part of the process ceases when the oxygen fails. In Nature it is supplied to the water by its exposure to the air through agitation by the wind, through running over rapids and over rocks, through currents produced by heat unequally distributed, as by shade and light, and chemical changes taking place deep down, thereby producing heat. When too much sewage is present in the water, all this dissolved oxygen is used up. Fishes depend on this oxygen for their respiration. They are driven out of sewage polluted waters when it has reached these proportions, or, if forced to stop in it, they die. Thus, the power of fishes to live in a water is taken as a test for its purity. When they do not live in it, we have undoubted proof, other circumstances being excluded, that the water is seriously polluted. Yet, unfortunately, though pollution may not be great it may yet be dangerous, though fish may live. Hence this method decidedly has its limits. In a river or lake all these chemical actions go on, precipitation, from admixture of water and sewage, these containing varying compounds, hydrolysis and gasification of this by anaerobic bacteria. What is left is oxidized through the agency of aerobic bacteria, the oxygen for this purpose being derived from the air dissolved in the water. Other agencies besides these play a part in the process, and they have probably not been heretofore taken sufficiently into account. Thus plant life of a slightly higher order than the bacteria, and even those low forms—so large that they are quite visible to the naked eye, as a fur-like growth adhering to

higher water plants and to stones and bits of wood—perform their part in precipitation. The meshes of the low plants give shelter and protection to myriads of chlorophylaceae, and to many forms of protozoa (paramecium, monas, euglena, vorticella, stentor, etc). These plants and low animals are found not so much when the sewage is fresh or just stale, but when it is partially treated. Old cess-pools show them in large numbers, especially the protozoa. Continuous filters and the drains from filter-beds also show them in large numbers, but especially do they show the low vegetable organisms. These at times form veritable nuisances, by growing to such an extent as to fill up the drains, etc.

Various standards of dilution of sewage with river water have been attempted. The difficulties are: (1) The variation in the compositions of the sewage, e.g., English sewage is, as a rule, 3 to 4 times as strong as that met with in America; that of Berlin, Ont., is over twice as strong as English sewage. (2) The variation in rate of flow of rivers. (3) The variation in the quantity of water at different seasons. When the free ammonia does not exceed .12 parts in 100,000, the dilution is looked on as a safe one. In the Eastern States this would correspond to a dilution of one part of sewage in 50 of water; in England, with the sewage three to four times this, the dilution would need to be one in 150 to one in 200; and at Berlin, Ont., to be on the safe side, one in 500 of river water.

There is a very important objection to discharging sewage into rivers to be sent down to towns and cities below, owing to the fact that sewage may run quite a long distance before mixing intimately with the water and being diluted and treated.

The same thing applies to the discharging of sewage into large bodies of comparatively still waters, like Lake Ontario. Sewage may float on the surface for long distances, and be carried in various directions according to the winds. Off Toronto Island this is well illustrated. On one day floats will be seen drifting eastward, and a few days afterwards westward. These currents and the fact that sewage shows a tendency to flow near the surface has an important bearing in reference to water supplies to towns on lake fronts where raw sewage is being discharged into the lake. Experiments carried on some years ago by the Provincial Board and Toronto officials showed that on certain days floats would travel from off Scarborough Heights to the western end of Toronto Island, a distance of about six miles, in some cases in three hours. The sewage could not be decomposed in this time.

(d) Land Irrigation.—The first systematic attempt to dispose of sewage on a large scale was made by this method. Large cities like Paris and Berlin had outside their confines extensive tracts of almost barren sandy lands. These lands only needed water and fertilizers to make them productive. These cities were polluting their water supplies with their own wastes. This method of irrigation, as a method of disposal, proved so successful that Berlin irrigates some 11,000 acres of such land, and is extending the system to 19,000 acres.

A daily average of some ten thousand gallons of ordinary domestic sewage can be disposed of to the acre by this method on a suitable soil. The best soil for the purpose is a sandy loam, the more sandy the better, and well underdrained, usually at a depth of four feet. Plants take up a large quantity of water from the soil. It is calculated that for every one part of dry solid added to the weight of a plant 250 parts of water are evaporated. But all the water in broad irrigation is not got rid of in this way, but partly by underdrainage. The importance of a porous soil is quite evident when this is taken into account. The more clayey and heavier the land

is the less will water drain off, so that if broad irrigation is adopted, where such heavy land only is procurable more must be utilized and very much less fluid applied to the land. All plants are not suitable for growing on such beds, but only such as can be grown on ridges or stand up from the earth are safe to be used as food. The sewage must not touch the plant in its raw stage; this usually injures the plant or may kill it. The plants are placed in beds or ridges, having trenches running around or alongside, in which the sewage courses at intermitting intervals, filtering through the earth, laterally, a good deal of it, of course, sinking down into the earth. Plants cannot use raw sewage, except in very limited amounts. By this method of distributing the sewage, bacteria in the neighboring soil oxidize it, and it is then taken up with the water which the plants absorb from the earth. Now, plants cannot be loaded day after day with large doses of water. The requirements of the plants by this method come first, and the sewage supply must be limited to these. If there are other beds, and it is always necessary to have plenty of reserve land where this method is used, the sewage is sent to them; if there is not, it must be cast away without treatment. In Berlin, Germany, where this method is possibly seen at its best on the Continent, they have found it necessary to separate the heavier portion, or the sludge, of the sewage, before allowing it to go into the trenches, from the fact that in a very short time this sludge coats over the surface of the trenches and obstructs the filtration into the land, and, from covering the surface, prevents the free access of oxygen into the soil, thereby crippling the action of the aerobic bacteria. Under such circumstances, the effluent from the underdrains is found to carry off a still putrescible, or a more or less incompletely treated and putrescible substance—a poison-carrying material.

At the Asylum for the Insane, at London, Ontario, probably the best broad irrigation method of sewage treatment on this continent is carried on. Heavy crops of varying kinds of vegetables are grown, several crops on the same land being produced in the one season. The sewage is the domestic sewage of the institution, where there are over 1,200 inhabitants, giving about 75,000 gallons per day. This is collected in a large reservoir and pumped out once a day, a special form of steam blower, devised by the engineer, being used to stir up the sewage so that all the sludge is carried off at each pumping. This is distributed to the long beds in lateral ditches or trenches of 6 feet wide, between flat beds 12 feet wide. The land is coarse sand. From the trenches the sewage filters laterally into the vegetable beds. There are seven acres for the treatment of this sewage, and the long beds are centrally underdrained throughout their length. The sludge that collects in the ditches, as soon as it dries, is raked up and carried away in barrows, and this has to be done occasionally, every two or three weeks. The trenches are spaded over three or four times in the year. When more water than ordinarily is required by the plants, and they are of a kind around the roots of which the sewage can be poured, the sewage from the trenches is ladled out. All this, of course, means a good deal of labor. Here it is useful labor in the treatment of patients, and practically costs nothing. They have found that it is necessary to use manure as well as the sewage to get the best results from their gardening, and this in spite of the fact that it is a fairly strong domestic sewage. There is no bad odor about the place, and no complaints are made from the lower lands. In fact, it is admitted that the crops in the fields below have been better since this system was adopted. During the winter months, the sewage is run into the trenches as in the summer,

and disappears nearly as quickly, and has given rise to no complaint. The snow, when there is any in the trenches, is dug out before running in the sewage, otherwise they have found freezing takes place to such an extent as to prevent filtration. They leave the snow in the trenches between times to keep the ground from freezing deeply. There are some ten trenches, fully 500 feet long. All the sewage of a day is run into one or two of these and then into the next one or two on the following day, and so on, leaving the first to rest until their turn arrives again. On a recent visit, the trenches had been filled a couple of hours before my arrival. The distal ends were already dry and at the proximal ends the sewage had nearly disappeared. The ground was only moist. These trenches would get nearly five days' rest before the next application. Each trench had got, with this charge, about 37,000 gals. If it were required, more sewage might be treated here by giving three days rest, on account of the great porsity of the soil and the great care that is taken to keep the surface in such good condition. Land will not treat all it will filter, as is sometimes supposed. The organic matter, as well as a good deal of the mineral, is held in the meshes of the soil. This takes time to decompose and disintegrate. If the sewage were continuously or too often poured on, the spaces would soon be filled or sludged up; treatment would cease, there would soon be hindrance even to the passage of pure water through it.

Now, on account of the fact that the beds are not used to their fullest capacity, from the necessity of favoring the plants grown, and also from the fact that sufficient land is not always available, and that labor to carry on this ideal method thoroughly would be expensive, the method has been further simplified by leaving out the plant-raising end of it. Thus the sewage is poured over the land, the trenches being dispensed with, all parts acting equally. The intervals between applications can be shortened to the capacity of the bacteria's power of disposing of the sewage. Since plants have not to be looked after, all the time can be given to attendance in distribution and keeping clean the land, and the labor may thus be reduced to the minimum. This method is called filtering, and, on account of the intermittancy with which the sewage is applied, it is spoken of as "intermittent land filtration."

(e) "Intermittent Land Filtration."—In this method raw sewage is poured over all the land, in intermittent doses, with intervals of two or three days between applications. The higher plants have practically no power of digesting raw material for food purposes for themselves, but bacteria can. It is only the finished product which higher plants use. The finished product is not harmful, so can be run off with impunity. The higher plants obstruct the function and growth of bacteria, so that in this method of intermittent filtration the bacteria are placed in the most favorable circumstances when the land is kept free from higher plant growth. Cropping with this form of treatment is looked on as reducing (according to form of plants grown) the disposal powers of the bed from 25 to 40 per cent. The intermittancy is with the object of giving the bacteria between doses a sufficient time to decompose all the organic matter of the last charge. We have already seen that, of the organic matters, all are not equally and rapidly decomposable. A point worth noting in the application of the dose of sewage is to do it as rapidly as possible, consistent with non erosion and serious disturbance of the surface of the beds. The bacteria which do the work in this process are the aerobic ones. If the application be long drawn out, unless in a very fine rain, it cuts off a free oxygen supply, and, as has been seen before, this means crippling the action of the bacteria and, if long continued, may even kill them out. This brings us to another

point with reference to the application of sewage. It is, not to put so much on that it will take more than, at most, five or six hours to sink into the land. For this to be done with uniformity, all matting or caking of sludge on the surface must be avoided by frequent removal. This is especially necessary if there be much fat or oil or tar in the sludge. These prevent oxygen getting into the soil freely, and if in large quantity may prevent its entrance entirely, as well as preventing the entrance of the fluids of the sewage. The fats will in time decompose, but the tar will not. It is on this account that such substances should be prevented, as much as possible, from getting into filter beds.

The draining of the beds is also important. The products of bacterial action must be carried off if the bacteria are to go on performing their function. With the land water logged, the bacteria cease their function. Now, different qualities of land, e.g., clay and sand, vary in permeability. This must be kept in view when dosing sewage beds. Is it clayey? This does not drain well. A very much less quantity of fluid will pass through than will go through sandy land. And so for all intermediate qualities, from sand to clay. The better the capacity for drainage, the less bathing in poisons the bacteria will suffer; the more work they will do. Thus sandy soil is always the best. All lands will treat sewage. But all lands will not treat an equal quantity, or with equal completeness. Not all the fluid that goes through a land is necessarily treated. In clayey land cracks and crevices are often found, especially in dry weather, through which totally untreated fluid may pass.

Bacteria can use up only so much organic matter. The rest is untouched. Dilution has very little effect on the amount of organic matter treated. At the Lawrence Experimental Station sewage was diluted twice and three times with water. The treatment was practically the same in all three sewages. In other words, if a certain area of land will treat the organic matter in 10,000 gals. of sewage, then if that sewage be diluted with an equal quantity of water, thus making it 20,000, the result in organic treatment will be practically the same. This is also the case if it be diluted to 30,000 gals. It is the quantity of the organic matter that counts for most, and not the quantity of fluid. Of course, this must be understood to be within certain reasonable limits. If the sand cannot get rid of the water sufficiently quickly, the organic matter will not be treatel at all, or only partially.

At Berlin, Ontario, a process of intermittent land filtration was installed in 1891. As the town grew and the sewage increased in quantity the beds became less and less able to perform their function; they were overworked, water logged, sludged over the surface, practically all aerobic bacterial action was stopped. These beds became veritable cess-pools. Then, to make things worse, the wastes from tannery after tannery were poured in, also from a brewery, from laundries, and from the gas works. The tanneries increased the organic matter to be treated, added materials like tannins, that are treatable at best only in the smallest quantities under the most favorable circumstances; also sent down fats, as the laundries do from their soaps; and, besides this, a quantity of finely divided bark fibre, which is almost practically non-disposable, being almost non-putrescible. The brewery sends down the husks of grain, and the gas works sends down a tarry oil, which is probably the worst crippler of a disposal bed possible. Altogether, Berlin's 14-acre clay intermittent filtration farm was treated as roughly as was possible. To make things worse still, the surfaces of the beds were not kept clean. One man's labor could not possibly keep the surfaces, under the circumstances, even in fair condition.

To show how hard an old idea dies, with all these circumstances against them— too much sewage, bad filtering material, ill-putrescible substances,

objectionable sludging material in the sewage, insufficient labor to keep the surface of the beds free from sludge—an attempt was made, and is being continued, to raise crops on these beds. They raise good crops, but reduce the disposing powers of the beds in a notable degree, when they are already trying to carry a burden twenty times or more than their capacity.

To the State of Massachusetts is due the credit of bringing the intermittent land filtration of sewage to its highest development. They have abandoned all other forms of land but sand for the working of this system, so that the process has come to be called "Intermittent Sand Filtration." A considerable quantity of good, well-drained sand can be found almost anywhere in the State. The system has been generally adopted throughout the State, and during the last fifteen years has done all that was expected of it. It has been perfected in detail, and worked out in theory, until now, of all the methods of treatment of sewage, it is the best, giving effluents not much worse than a good drinking water. In fact, many drink waters are of a much inferior quality. All that is required is a sandy soil of pure sand of four or five feet of uniform thickness. The top earth is thrown up to make banks between one-acre lots. It is drained with ordinary farm tile, four inches in diameter, laid in lines forty feet apart across the bed and leading into a common effluent carrier. A central wooden or cement affluent conveyor is run across the top of the whole bed.

The construction is simple, and comparatively inexpensive. At Brockton, Mass. their farm has been in existence over fifteen years. It has not deteriorated; in fact, it is doing better work to-day than at the beginning. It is treating, the whole year round, an average of 35,500 gals. per acre per day, counting in times of rest, repairs of drains and intermissions. The application to the surface is often 200,000 to 250,000 gals. at one time. They have 25 one-acre beds (19 only are in commission at present), for a population of 30,000 people, all using the sewers. These are used alternately, beginning with No. 1, going on to No. 19, and coming back to No. 1. Each bed thus gets several days' rest between each dose. More could be treated if necessary. But, so far, it has been preferred to buy new beds than to run any risk of sludging up those they have, that are doing such good work.

Essentially raw sewage is being pumped on to these beds. It is collected in a circular reservior, capable of holding all the twenty-four hours' sewage Three to four hours' pumping each day is all that is required to empty this. The towns I visited, during my Eastern trip, using this form of sewage disposal were Brockton, Clinton, Andover, and Hopedale, all of Mass. All of them are doing good work, and producing effluents practically beyond reproach. There is practically no odor about them. If one did not know there was a sewage farm in the district, he would never suspect its presence. Several very nice houses have been built within a couple of hundred yards of the Brockton one, and many new ones are being put up.

The cost of running these beds, outside the pumping, is not high. A couple of men are employed to keep down the weeds and to turn on the sewage. The surface of the beds are scraped over not oftener than once in three months, and it is only half an inch or so of material that needs removal. The neighboring farmers usually carry it away for manure, though its value is not very great. During the winter time the beds work as well as in summer. The only change in treatment is to ridge over the whole surface as some farmers ridge up the land in the country to cultivate turnips, beets, etc. This is usually done by a plough going up one side and down by the other, and then smoothed up with a hoe.

When, in cold weather, the sewage is run on to the beds, filling them to the top of the ridge, it freezes on the surface, leaving plenty of space between the ridges and beneath the ice for all the sewage applied. The salts in sewage keep it from freezing solidly, and, besides, chemical action going on in the sewage keeps up a certain amount of heat. At any rate, it does not freeze under this sheet of ice. The surface if anything, is increased for filtration. Sludge does gather to some extent, but falls to the bottom of the trenches. This is scraped up in cakes in the spring and carted away, and the ridges harrowed down level again. Sometimes the surface is ploughed over and harrowed. This improves the treating power of the beds. A study of the following figures for these Eastern towns will show what "intermittent sand filtration" will do with sewage:

City.	Average gallons per acre treated	Free ammon.	Alb. ammon.	Oxygen cons.	Chlorine.
Brockton, Mass.	35,500				
Raw sewage		3 01	1.36	6.44	6.59
Effluent		.1766	0123	.13	
Framingham, Mass.	27,500				
Raw sewage		3.1012	3.145	29.46	8.45
Effluent		.6382	.0176	.18	
Lawrence, Mass. (experimental filter)	90,000				
Raw sewage		3.080	0.590	4.01	6.60
Effluent		.1113	.0207	.27	

Better than this could hardly be asked. All it requires is plenty of sandy land. During our experiments at Berlin, Ont., we went over the hills to the east and west of the sewage farm, and dug a large number of test-holes. The land to the west, all along the ridge shows good gravel for a considerable depth, and not more than, on an average, of 15 to 18 inches below the surface. By terracing, from eighteen to twenty acres of beds could easily be made. There is one slight objection in some parts on this side. It is that about eighteen or twenty inches into the sand is a one-half inch clay stratum, which might interfere somewhat with filtration. To the east from the farm is land of a much better quality. On the very surafce, the sand looks like drift sand, but after a couple of inches it is just of the quality required, and twenty-five acres could easily be made up, and at very little expense, beyond scraping off the top soil, which is here much thinner than on the west side. The greatest objection to this side is that it is closer to the town. Both sand lands are about on an equal level some twenty feet above the sewer level at the farm. The sewage would require to be be pumped to be applied to these beds, if constructed. All the Eastern cities pump, and consider themselves fortunate to have the good sand-beds at such small cost. There are no sand-beds along the valley on the same level as the sewage, or below it, within at least three miles below the farm.

With the sewage of Berlin at its present composition and quantity, nothing less than three or four hundred acres of the present clayey land would do to dispose of its sewage.

The average composition of Berlin's sewage is: Free ammonia, 2.542; albuminoid ammonia, 2.017; oxygen consumed, 49.95 per 100,000 parts.

In free ammonia Berlin's sewage is weaker than that of Brockton, Mass. Its albuminoid ammonia is one and one-half times as strong, and its other

organic matter possessing the power of decomposing permanganate of potash eight times as strong. This last is not so important as the albuminoid material, though not to be neglected. It could, in large part be got rid of by other methods to be mentioned presently.

Now, since Berlin's sewage, in its most objectionable feature, the albuminoid ammonia, is one and a-half times as strong as that of Brockton, Mass., and since Brockton, requires one acre for each 35,000 gals., Berlin would require one and a-half acres for the same amount, and since Berlin has, on an average, 450,000 gals. a day to treat, it would take about nineteen acres of sandy land of the same character as at Brockton if raw sewage was to be treated; but auxiliary methods to be mentioned later can be introduced, which will make Berlin's sewage weaker even than Brockton's, and, in proportion, will require less land for this final process of "intermittent sand filtration."

Now, though "intermittent sand filtration" can treat raw sewage in such large quantities per acre, and is admitted to produce the best effluent of any system of sewage disposal in vogue, in certain localities it is difficult or impossible to carry out this method. The land may be too expensive, or there is no sand. It might be carried, but this by the acre at four feet depth is expensive. Sanitarians have been on the lookout for some process that would act as auxiliary to this method, or even replace it.

(f) The Septic Tank.—It had been observed that from old cess-pools water ran away almost clean-looking, and, curiously, when an attempt was made to clean them out very little or nothing was found. Why was this? The effluent was not like raw sewage, and did not answer chemically to it, and there was practically nothing accumulating in the cess-pool. Bacteriology solved the question. It was found that the conditions favored the growth of a certain class of bacteria, and that these bacteria produced such substances (enzymes) that in their action introduced a molecule or molecules of water into organic substances, which union resulted in the disruption or breaking up of the molecules into simpler ones. Sometimes all was converted into gas, as, for instance, to state a couple of reactions a second time.

(Albumen), $4C_8H_{13}N_2O_3+14H_2O=4N_2+19CH_4+13CO_2+2H_2$;

Or (Urea), $CO(NH_2)_2+H_2O=CO_2+2NH_3$.

or again, (Sugar), $3C_2H_{12}O_6=2CO_2+12H_2O+2C_2H_6O$ (alcohol).

Part of the substance was converted into gas, the rest of it, presents in a simpler form.

The alcohol or the simpler compound will be converted later on in the effluent of the tank by a process of oxidation, and be finally gasified, thus disposing completely of the sugar. These compounds can be destroyed in the cesspool, but more slowly than the original ones. Now all organic matter is more or less completely disposable by this method and of course when the process is complete there is nothing to remove. All that would accumulate in such tanks would be insoluble mineral matter, and such organic substances as are with great difficulty decomposable. Now the bacteria that do this work are found to be the anaerobes, and the reason that they grew so well here was that the oxygen coming in with the sewage (there is not more than 7 c.c. of it in one litre of sewage) is all taken up by the chemical changes going on in the sewage. In the cesspool from its size there is practically no agitation going on, so that exposure of the deep portions to the surface rarely if at all take place. A freedom from oxygen exists after the first inch or so in depth is reached. An anaerobic

condition is produced, aerobic bacteria cannot functionate there, and may even be killed out. Now a tank where this condition is produced is called a septic tank, or one in which rotting or decomposition or putrefaction of the organic matter of sewage can be carried on, and would of itself be able to treat sewage completely if time were given. Under working conditions this would be found impracticable. After the first almost sudden disruption of the complex proteid, carbohydrolactic and fatty molecules of the sewage and liberation of gas by hydrolysis, the simpler remaining compounds are with more difficulty acted on; at least a considerable time is required. Aerobic bacterial action such as takes place in "land filtration beds" does this much more rapidly and completely, so that it is found much better and much more economical to divide the work between the two forms. This tardiness in the decomposition of the simpler forms of matter found after this first disruption may be accounted for in this way. We practically have bacteria for the destruction of each of the compounds, the ground is taken up by the first hydrolytic set and it is found in bacteriology that when one form gets the start it is difficult for another to step in or live with it. If they do they modify the action and function of one another. Is it that in the case of the simpler compounds the proper bacteria for their decomposition are not present, or if present are handicapped by the first set, and not being able to perform what they might do rapidly if given a chance now do it tardily? One of the problems we look forward to working out in the laboratory is—Would the effluent from tank A run into tank B by a process of selection encourage the growth of such organisms as would attack these simpler compounds and thus get more work from the septic tank system?

The septic tank has come to be one of the greatest auxiliaries to the treatment of the organic matters of sewage. The sewage is retained only long enough to get this first hydrolytic action. By it the matter is either completely broken up into gaseous substances or into simpler compounds. What has taken place in a gross fashion is that by gas formation bits of tissue, masses of faeces, pieces of paper, etc., are exploded as it were, broken into smaller particles, and liquefied, the remaining heavier portions settle down to the bottom of the tank and are further acted on—exploded—; finally what falls and rests for good at the bottom are only such substances as are no longer capable of being decomposed. This is called "sludge." Now this settling holds this practically non-putrescible material back, preventing it thus getting into the filter beds. This is the material that "sludges up" beds. The organic matter leaves the tank minus its gas and appears in simpler forms to be treated when run on the proper beds by the aerobic bacteria almost exclusively there, by a process of selection on account of surrounding circumstances, as has taken place previously in the septic tank with reference to anaerobes.

The gases that come off from septic tanks, as the substances which enter are various. The chief are CO_2 H, N, CH_4 CO, sometimes H_2S $(NH_4)2H$. There are various aromatic substances besides these given off. Some septic tanks give off very offensive odors, others none at all. In the present state of our knowledge no one can prognosticate whether a certain tank will be foul smelling or not. Perhaps it is due to the special forms of bacteria that have come out of the process of selection, that has taken place when the tank was started.

It has been found in practice that open tanks do as well as closed ones so far as treatment is concerned, as so little oxygen is taken in from the surface and all deep down is used up. If a tank gives off offensive odors it

might be better to close it and ventilate with a high shaft or chimney. At Clinton, Mass., during working hours the gases were directed into the fire-boxes of the pumping plant. The engineer thought it made some difference in the coal consumption. The gas was from 750,000 gallons. On an average one gallon of mixed gas is given off from every 100 gallons of septic tank sewage. At Exeter, in England, the gas has been used for some of the lighting of the works. A scum from 1-1-6 of an inch to eight or 10 inches in thickness collects on the surface of most septic tanks. This is made up of bacteria and sewage particles rendered buoyant by gas bubbles. It was at one time looked on as a necessary thing in a well-working septic tank. It is looked on now as only an incident. Tanks without it show as good treatment as those with it, and frequently during active function the scum disappears completely to perhaps again reappear and disappear.

Thousands of larger or smaller bubbles may be seen rising to the surface of an active tank. In the winter not so many rise as in summer. The tanks do not do so well either, though not always are tanks acting according to the bubbles they give off. These gas bubbles are not peculiar to septic tanks. We see them in all waters where bacterial action is going on. A sediment or sludge collects at the bottom of septic tanks when in use for some time. It is a thick granular, blackish substance, and looks like a thin black mud. It is made up of sand, clay, wood-fibre, cellulose and an almost non-putrescible organic substance remains. When carted on to land and allowed to dry it is grayish in color and looks like macerated paper. Examination of this at the Lawrence Experimental Station has shown the organic matter to be chiefly unaltered cellulose and wood fibre and almost useless as a fertilizer, unlike the sludge from chemical precipitation, which has weight for weight, according to Prof. Shuttleworth's analysis, an equal value with ordinary barnyard manure. Autumn sludge contains less organic matter than spring sludge. Three of the septic tanks at Berlin were divided into four equal parts. The first compartment was really a grit chamber. From May 27th to September 25 the tanks running continuously, nearly the whole of the first and 1-3 of the second compartment filled with sludge. In the other two compartments not more than an inch had collected at the bottom, a very small quantity when it is remembered that about 1-25 of a column of the raw sewage on standing was sediment. The composition of the sewage has considerable to do with the treating power of a septic tank. At Worcester, Mass., the sewage contains a considerable amount of acid iron in solution. Twenty-six per cent. of the organic matter is removed or treated in spite of this. At Exeter 17 1-2 per cent. and at Leeds 59 per cent. was removed by the septic tank. At Berlin our average was from 44-55 per cent. in the different tanks. Of course these last were summer results, with a temperature of 60 to 65 degrees F. during their active period of a slowly putrescible material. In the winter time the average temperature at Lawrence Station during 1900 from Nov. to April inclusive was 46.38 F. of effluent. The average treatment was 58.9 per cent. With a summer temperature of 65.88 the average treatment was 56.3 per cent. In this particular case the treatment is in favor of the winter months. However, this is not always the case. When starting a new tank it takes some time before any change beyond a mere mechanical one is observed. Experience in Berlin confirms this. We started two up-town tanks on May 27th, and as late as June 25th there was no treatment. Warm weather commenced, the analyses on June 30 showed a removal of 40 per cent. in one and 60 per cent. in the other. From June 28th to June 30th bubbles for the first time began to appear, and

bubbling was rather vigorous. The two tanks at the farm were started on June 25th, on the 26th no treatment was observed in either of them. On July 7th the large one showed 41.5 per cent. removal, whilst the smaller one showed 40 per cent. The large tank had only been cleaned out before beginning it. The smaller one was new and yet showed only a slight difference at this time in treatment.

It has been recommended to seed a new tank, as in the vinegar process it is started by placing some mother of vinegar in the apparatus, with scum taken from a working tank. A considerable quantity of sludge had been left in the big tank at the farm and yet it did not show any great advantage over the new tank, into which only raw sewage went. The two up-town tanks did not show any treatment for one whole month, and then woke up in two days to a very large treating capacity. All of these tanks were started running with double their capacity in the 24 hours, a rather heavy dosing, e.g., each of the uptown tanks holding 600 gallons, 1,200 gallons were run through in the 24 hours.

Our Berlin experience has shown about a 10 per cent. difference between the treatment in a double capacity and a single one, in favor of the one capacity.

A septic tank serves several purposes. It is most important of course in the decomposition of the organic matter; the retaining of suspended matter, sand, paper, faeces, and even more finely divided material, is another important purpose. This saves the beds. Another and not to be overlooked function is to hold floating matter, especially fats and oils. These substances are capable of doing great damage to beds. They are treatable, but require much more time than ordinary organic matter. Now in the construction of the tank these three functions, especially, must be kept in view. To meet the first, viz., the treatment, sufficient capacity must be given. Enough space to get the fullest benefit consistent with economy should hold the whole of the sewage of the 24 hours. There is no objection to depth consistent with cleaning when this is required. Ten feet, unless there be difficulty in excavating, would be a good practical depth. It would be well to have the tank not more than three times as long as broad, so that the sewage will pass over a broad space and thus minimize currents and stirring up as much as possible, for it will be found preferable to run the sewage through continuously. If it is taken out by any mechanism that suddenly removes a considerable quantity, too much stirring results in considerable suspended matter being carried out that should be left behind. Now arrangement should be made that the inlet be large, so that the entrance be slowed, and made considerably below the surface, so that upward pressure will aid in the precipitation of suspended matter. The outlet should also be broad and below the surface, so as not to carry off any floating scum. This would not be good for the beds. To arrest the coarser substances the first compartment should be a grit chamber with a partition running up to the sewage level. Over this partition, the entering sewage, after rising overflows. To hold the lighter sludge the fermentation chamber proper should have baffle boards at two places to within half way up to the sewage level. To facilitate cleaning, gates should be put in those baffles at the bottom, so that when it is required these may be opened, so that the sludge will flow towards the grit chamber, which end of the tank should be on a gradually lower level for this purpose.

To retain the scum and floating fats and oils baffle boards should be let down from the top of the tank to at least a foot or eighteen inches below the level of the sewage.

The material out of which the tank is made is of little consequence, so long as it is a non-putrescible or non-rotting material. Wood is soon crumbled away.

No chemicals are needed, not much labor, only space. It is about the cheapest way possible of getting rid of half of the sewage. It saves the beds by holding back suspended matter, and gives to the beds materials already prepared for further bacterial treatment, thus saving at least fifty, actually nearly 60 per cent. of filtering space.

The septic tank system is not a complete method of treating sewage. In practice it is the greatest auxiliary to its treatment. It treats half and prepares the non-finished material, or puts it in a condition chemically and physically in which it can more easily and in a greater quantity be treated by any given filter bed area.

At Lawrence Station they have suspected that over-septic treatment is harmful to the aerobic treatment to follow. Perhaps this is due to the fact that too much toxic substance is sent over into the beds. They were prompted to this conclusion by the indifferent treatment that septic sewage experienced when going on the intermittent sand filtration beds at Andover. The sewage here travels a long distance from the town and remains for a considerable length of time in a large inverted syphon crossing a large valley before reaching the septic tank, and this retained in the tank probably had too much septic treatment. This question is being investigated carefully by them; in the meantime we anxiously look to the results of their experiments.

(g) Chemical Treatment of Sewage. The ideal end would be to gasify, and reduce to its original elements the organic matters of the sewage. There are chemical methods of doing this, but not such as could be used on a large scale or could be used within anything like reasonable cost limits either. The process in use is to coagulate and precipitate all that is possible. It was thought at one time that all could be so precipitated in practice; but this has been found not to be the case. In London, England, the sewage removal is only 30 per cent., in Worcester, Mass., 50 per cent., and this last is about the best possible by this method. The chemicals used, though cheap, when used in the proper proportion, come to be a large bill of expense. Lime is one of these chemicals. Ten grains are frequently used to each gallon of sewage, and is a small quantity to use in many cases, would amount to 6 1-2 tons of lime per day where one million gallons of sewage a day are treated. Other chemicals are required with certain sewages, and are not, though used in such large quantities as lime is; still they are vastly more expensive (e.g., sulphate of iron and alumnia). The idea in these methods is to coagulate the organic matter in solution; this makes it heavy enough to fall to the bottom. In the process of coagulation a certain quantity of suspended matter is enmeshed and carrid down with the coagulum. After treatment the sewage is conducted to large sedimentation reservoirs and kept as quiet as possible to allow of settling. This cannot be allowed to go too far either, for some of the sediment may again redissolve. The supernatant fluid is run off, leaving a thick, muddy substance at the bottom (sludge); this last is pumped off, mixed with more lime or some other thickening material, and carried to presses to get out part at least of the excess of water. Sludge as it comes from the settling basins contains on an average 90 to 93 per cent. of water. After hydraulic pressing into cakes it will still hold from 70 to 75 per cent. of water. This cake sludge is a bulky material, and has to be carted away. Weight for weight it has about the same value as ordinary barnyard manure. When

iron or alum is present in it, there is a question whether or not it be as valuable as the ordinary manure. When it dries, on account of its cake form, it is very awkward to handle. Farmers cannot be induced to buy it, nor even cart it away if given to them. It could be kept until dry, but this encumbers on account of its bulk. It could then be powdered. This would increase its cost. At Worcester, Mass., they are carting it by a trolley line to a near-by valley and filling in with it. The odor about it is not very savory. There is still much water in it along with chemicals. It is in this condition not easily incinerated. The process would be expensive.

The chemicals used are lime and sulphate of iron and alum. The sewages to be treated vary in composition and especially in reaction. Ordinary domestic sewage is alkaline. Lime here is a precipitant. Many manufacturing wastes, e.g., tannery and iron works wastes, are acid. These need to be neutralized. This takes up a quantity of lime to reach the neutral point; after this the farther action is to coagulate. As much would be needed for this last as for domestic sewage, there would be added to this then the quantity required to neutralize, coming very high in some cases. The other two chemicals are used with the idea of bringing down what the lime cannot of the proteid substances and certain of the coloring matters, as the tannins, etc., in tannery wastes for instance. In sewages containing acid iron, the addition of the sulphate metals is not necessary, the iron of the sewage takes their place.

The settling basins require to be large, so that unnecessary currents are avoided, whilst the treated sewage is passing through, to allow of the needed amount of precipitation. They are not usually covered, as generally there is no objectionable odor coming off. The treatment is only a partial one. At best half of the organic matter remains, the bacteria natural to it are more or less destroyed. This untreated material when carried into a water course goes much farther than if it had its destroyers with it. It has eventually to be treated. This fact, though, has some benefit. In Hamilton, Ont., before the chemical method was adopted the bay was becoming choked up with water plants. Now even near the end of the season, though there be some present, the bay is comparatively clear of them, even up to the shores. The half-treated sewage probably is carried far out before the new set of bacteria have increased sufficiently to make the material good food for water plants. In the case of a river this would be harmful. As it is now the sewage from a town is more or less removed by the various methods already outlined before, the next town is reached. In the case of those chemically-treated sewage the material might reach the next town before it began to be treated and give rise to danger, especially when the rivers are depended on for water supplies. We might as well face the fact first as last. To get rid of organic matter bacteria must be called into action sooner or later.

The method is used as a preliminary one to land filtration and is a useful one, though not as good as the septic tank method. There is more danger from objectionable material getting into the beds. The chemicals used when in excess, or even in their combined stage are harmful to bacterial growth, and so much depends on unobstructed bacterial growth in land filtration. However, land filtration gives very fair results after it. The beds can be reduced in number beyond what would be required for raw sewage. And in the case of manufacturing wastes objectionable chemical substances can be prevented by their precipitation from raching the filter beds.

Compared with the septic method, much more plant is needed. In the chemical a mixing place is required for the raw sewage, another is required

for the sludge, a sludge pump is required and then a sludge press, and this has to be running almost continuously. The haulage is much more serious also. In the septic method the sludge is removed from each tank perhaps not oftener than once in 3 or 4 months. The pump is then only a simple one. As for reservoirs or basins, for the septic very little more space is required than for the chemical. The objections to the chemical method are:

(1) The chemical method costs much more than the septic; (2) it does not on the average remove as much organic matter; (3) what it does remove is only temporarily so; (4) there is the great difficulty of removing the sludge; (5) when the effluent is passed to "land filtration beds" it is much more likely to sludge them up, and besides the treatment is not so good. The material has not been seeded, as it were.

The good point of the method is that it can be used as an aid to the septic, by being put into operation at factories to hold back objectionable material that might get ino the disposal plant. As, for instance, in the case of a tannery, a great quantity of the hair, bits of hide and precipitable matters, tannins, etc., could be withheld, so large as 50 per cent. The process, after all, should not be thought of as chemical only. It is only partially so. The greater part of the process is mere mechanical sedimentation. It is in the last phase especially that it is useful in the treatment of factory wastes.

(h) Contact Beds. Though it has been shown that intermittent sand filtration beyond any doubt is the means at our disposal which produces the best of all effluents with sewage, there are circumstances where it is next to impossible to install such a system. Intermittent sand filtration requires a considerable area of good sand for its purpose. This is not always procurable in the neighborhood of towns. Then it may be said they can be built. Four feet deep of sand in acre beds would cost a considerable sum if this had to be carted. Then again under some circumstances though there be sand, the land is not procurable. There are other circumstances. Perhaps it would be necessary to pump the sewage to the land. Under some conditions this would be very expensive, not meaning by this that pumping is always expensive.

Sanitary engineers have expended a good deal of time and ingennity to find a substitute for intermittent land filtration. The "contact bed" is the best compromise that has so far been devised. No contact bed gives the effluent that intermittent sand filtration gives, but it is better where his form cannot be used to get the next best, and the contact bed method gives this. A contact bed is a sewage treatment bed in which the material used is placed in such a manner and is of such a character that free oxygen will gain easy and continuous access to every part of it, thus allowing the aerobic bacteria on which dependence is wholly made for the treatment of sewage to perform their function at their best. Into this the sewage is run to overflowing, with as little delay as possible consistent with non-disturbance of the material, and allowed to stand in contact with the bed's material (sometimes called filtering material, though it is not except for the very coarsest suspended substances) for a stated time. During this time the enzymes or ferments, that the bacteria have formed during their period of rest preceding this running on of the sewage, attack the organic matters and bring on oxidation, that is introduce oxygen into the compounds, resulting in rearrangement of the molecules of which they are composed, into simpler and simpler compounds until finally only the mineral portions remain. This is precisely what is done in the intermittent sand filtration beds, only in the contact bed there is a greater supply of oxygen, more active change

takes place and much more sewage can be handled. After standing this stated time, usually not more than two hours, it is gently run off so as not to disturb the bacteria that are attached to the materials of the beds in the shape of a gelatious scummy substance, a zooglea mass as it were. If the sewage be left longer than three hours all told in contact with the bacteria these organisms are likely to be injured and may be even killed out. It is often found after a too long contact that it takes the beds sometimes even weeks again to recover their treating capacity. A contact bed is a very delicate living machine, which requires gentle, careful and skilfull handling. A man may go down in a diving-bell and perform so much work. When his air supply runs out he must be brought back to the surface, if left down he dies. The aerobic bacteria during contact with sewage are in the same position, when their oxygen supply runs out they must get more. If left too long without they too die. When the bed is emptied, the surface of course becomes clear of sewage first, then farther and farther down, until the bottom is reached. This running away of the fluid produces a void, into which the air from the surface is sucked, thus supplying it to the very bottom. And it should go there in a good contact bed. Now the bed is allowed to rest for from two to three or even four hours before the next dose is applied. Three doses to a bed in 24 hours is hard work for it. During the period of rest the bacteria live on the organic matter that is left in contact with the filter-bed material, building up more and more ferments, until at the end of the period considerable has accumulated. Now when the next dose is applied it is immediately attacked and oxidized as in the first instance.

Now though this form of bed treats a large quantity of organic material, it does not unfortunately decompose all that is run in. This is probably because a not sufficient quantity of oxygen can be got at. This is shown by the fact that after a certain period in the contact is reached no further treatment goes on. This period has been found in most cases to be reached in three hours of contact. There is nothing to gain in leaving it longer and all to lose in that our bacteria may be smothered out. Another explanation too is that possibly the products of bacterial action inhibit the function of the bacteria and even kill them. At any rate, the beds must have periods of rest. It has been attempted by mechanical means to supply a greater quantity of oxygen to contact beds to see if better results could be got. Perforated pipes have been placed horizontally at different levels in the beds and into these air is forced, in some cases previously warmed. A good deal of disturbance in the bed takes place, which probably does more harm than good in that it disturbs the bacterial scums on the bed material. At any rate it has not given what was expected. The treatment is no better, even worse in some cases, and such beds especially are found to sludge up much more rapidly than those without this artificial air supply.

The question naturally comes how is it that these beds do not fill up or sludge up with the suspended matter going into them in such quantities. These solids are not all decomposed in this short time. And the beds do in fact sludge up, and this is one of the serious objections to them. When a bed is started, if record of its interspace capacity be taken note of, it will be seen that for the next six weeks or two months it gradually becomes less. After this period is reached they frequently run for even years without showing any serious or appreciable diminution in capacity. The action going on is more complete than that going on in the septic tank; not so much sludge is left behind. They will nevertheless finally become filled up to

such an extent that they will no longer work at all. Sometimes if a period of five or six weeks rest be given the bed it may recover in great part its former capacity. It has accumulated probably a material that is very slowly putrescible. During the period of rest this becomes decomposed, and the space restored. Wood fibre and cellulose would act in this way. But if the sludging be due to mineral matter then it does not recover. The material has to be renewed or taken out and washed. This sludging up takes place much more rapidly when raw sewage is used in the bed than when the material has had some preliminary preparation such as screening, sedimentation simply, septic tank treatment, chemical coagulation or sedimentation. All these processes besides reduce the quantity of organic matter entering into the bed for treatment. The septic tank does this to the greatest extent of all. This last too is of more value still in that it primes the organic material, so that it is more easily attacked. And of course this means that the contact-bed area can be reduced. There is not so much work to do.

These beds are not filter-beds. They are simply beds in which the sewage comes in contact, under very favorable circumstances, with the active bacteria. These beds may be made of various materials. Coarse or fine gravel, screened so as to remove the sand, is used.

The efficiency of a bed is calculated on its finest material. If it be sand, then the coarse material is of no use. Sand is not a good material for contact-beds. It is too fine and leaves too small interspaces for active oxidation. At Berlin, we found the best treatment to be in the bed that had the finest gravel—one-eighth inch—next the one-fourth inch, and next the half-inch. The greatest interspace capacity was in the coarser bed, of course, and, therefore, the greatest amount of sewage for treatment was in this bed. The probable reason for the best treatment in the finest gravel bed was the fact that this bed held less sewage.

Fine broken stone, such as is used in some cities to increase friction for horses on slippery pavements, the screenings really from stone-crushers freed from the fine material and coarser stone, such as is used for macadamizing roads, have been used. This occupies considerable space in itself, and leaves large interspaces, and does not, in consequence, supply sufficient surface. Still it has its advantages in that it is practically indestructible.

Fine broken brick is used, as also burnt ballast, and both are of about equal value. Soft coal clinkers form a good material, but are apt to crush after a time. Clinkers from all coal is not alike in hardness. Some crush easily, others are quite hard. Then comes coke. This is an ideal substance in that it is porous and is rough, and this presents more treating surface. It has another good point, viz., that when the bed is sludged up it may be taken out and burned, having lost practically none of its burning quantity or quality. Some very good hard coke is procurable from the coke ovens near Pittsburg, Penn. Some of the cokes are easily crushed, and this is a serious defect in a contact-bed, leading to bad aeration and filling up of the bed capacity by sinking, etc.

Charcoal, though a good material in many ways, is so easily crushed that it is only under very exceptional circumstances advisable to use it, e.g., in small plants, where it can be taken good care of.

Coal has been recommended, also. It does not possess any special virtue, though, over many other materials, as crushed stone, for instance.

The material out of which a contact-bed is made makes very little difference in the treatment. It should be rough, but porous, not in too large pieces (half-inch in diameter at most), and of a good durable material that

will not crush. It would be well to be like coke, a good material to burn when no longer useful as a treatment medium. The thing is to use what is cheapest and best at hand, consistent with efficiency.

Regarding the construction of these beds, it may be said that if the land on which the beds are to be constructed be a porous one, the beds have to be walled, and have a bottom made that will be next to water-tight at least. If the sewage can filter through the bottom, contact cannot be maintained. Some beds I saw last summer took between five and seven hours to fill. The inlets were large enough to fill them in an hour. No true contact treatment was possible here. If the land be clay, then all that is necessary is to excavate to the necessary depth, from two to four feet; a greater depth presents too great interference with proper aeration and no advantage. The bottom should be well drained with ordinary tile drains, placed in contact only, with no cement. It is well to bank the drains with coarse (three-quarter inch will do) screened gravel, free from sand. The gate controlling the outlet from these drains should be of such a kind that the flow may be checked, so that it take nearly as long to empty as it took to fill the bed, so as not to disturb the bacterial scum and attached sludge of the bed material. We must think of the head under which this emptying takes place. There is considerable pressure under four feet of fluid. Where there is much fine suspended matter in the affluent, a couple of inches of sharp sand is a good device to retain it and prevent it getting into the material proper of the bed. This sand can be removed from time to time, every month or six weeks, and more be applied. It becomes thus an additional expense, but where manufacturing sewage is being treated repays the outlay richly. It holds back fats and fine suspended material. It is to be raked over every few days, otherwise it soon sludges up.

The inlet pipe to the bed must be large enough to fill the bed in at least one hour's time. A trough distributor should be placed over the surface of the bed, so as to feed the bed evenly in all parts and at the same time, seeing at the same time again that there is not such a rush on to the surface that the bed material be disturbed or disarranged. Very few automatic arrangements for regular distribution of sewage to beds are reliable. Intelligent attendants are far more profitable, even though they cost more. The beds should be made of such a size, calculating on one hour to fill each, that there will be no hours between that sewage will have to be run off without contact, taking into consideration the "cycle time' for each bed. The cycle for a well-run bed would be one hour to fill, two hours of undisturbed contact, one hour to empty, and from three to four hours' rest before the next dose is given, making the cycle time from seven to eight hours. Eight beds should then be constructed. Three applications in every twenty-four hours would be about as much as any bed could stand and do efficient work.

The effluents from contact-beds frequently have considerable suspended material in them. To prevent this getting into streams, it is well, under circumstances, to allow this to settle in a sedimentation reservoir of some sort, from which the effluent will overflow. This would not disturb the levels. The reservoir could be made of any depth, consistent with the easy removal of the sludge.

Contact beds will not commence to treat sewage, except as a coarse screen, the first day sewage is run on a new bed. It takes days, sometimes even weeks before they commence to treat, and, for the very same reasons as it takes for septic tanks to begin, viz., the selection of the bacteria, and these come from the sewage entering. Raw sewage supplies these more

quickly than septic sewage does. For seeding, it is well to make the contacts for the first week or so short. The selection takes place more quickly in warm than in cool weather. Seeding with surface garden mold is said to quicken the process. The advantage of this is doubtful, when the price of it is a partial sludging of the beds, and again it is just possible that the bacteria of this earth are not inured to this special form of food material that is found in sewage.

The effluent from the ordinary contact-bed, not being up to what was required, attempts have been made to improve it by making a second contact on another similar bed, and even at some places, a third bed has been added to get a third contact. Of course, these have to be on different levels, one below the other. The effluent from bed one passes on to the surface of bed two, that from bed two on to the surface of bed three. It has been proposed to add even a fourth.

These could easily be regulated in such a way that a weak sewage would be contacted in one, a stronger one in two, and so on to even the fourth. In this way, by intelligent handling, a large treatment might be got.

The results obtained at Sutton, in England, showed that on an average 770,000 gals. of crude sewage could be treated each twenty-four hours, showing an average purification, as to albuminoid ammonia and oxygen consumed of 64 per cent. At Manchester, England, using a preliminary septic tank treatment, 700,000 gals. of sewage per acre per day, it was found that, on an average, a purification of 75.2 per cent. of the albuminoid materials and 90.1 per cent. of the oxygen-consuming substances could be got, but this was after a double contact.

At Lawrence, Mass., in 1899, on an average, 700,000 gals. per acre per day of stale sewage was treated, with a percentage purification of 61 of the albuminoid material and 55 per cent. of the oxygen-consuming substance by the first contact, and 79 per cent. of the total albuminoid material and 75 per cent. of the oxygen-consuming substances by the second contact.

At Berlin, Ont., during the last summer's work, we were able to get on an average, 70.6 per cent. purification of the albuminoid material and 67.1 per cent. of the oxygen-consuming substances, by one contact, after using a preliminary septic treatment, running at the rate of 565,000 gals. per acre per day, leaving an effluent still containing of albuminoid ammonia .596 parts and of oxygen consuming substances 16.43 parts per 100,000, an effluent that was still putrescible.

It is hardly possible to get a complete treatment from a contact-bed. The effluent is not aesthetic, by any means. To come up to the standard of treatment required, it would need to be well diluted when passing into the final water-course. It is a compromise method. The result can hardly be compared with the effluent of an intermittent sand filter. Certainly a greater amount of sewage is handled to a given acreage, and in a given time, and certainly more organic matter is disposed of, but much more is passed through untreated also, and this is inseparable from the method. It is impossible to hold it longer in the bed for treatment, the bacteria would be killed out. The bed has to be filled at each sitting. Three or four doses can be given a day as well as one, and one would not treat any better than if three or four were given. The bed deteriorates much more quickly than the intermittent sand filtration one, and has to be renewed. It has to be handled with a great deal of skill and discrimination. It must not be left with the sewage in contact over time. It must not be drained away too quickly, nor filled too quickly. If it commences to lose its interspace capacity, this must be immediately recognized, and rest given it, or it may

irretrievably be spoiled and sludged. Another disadvantage is that night men have to be used to keep the beds going. This, of course, could be got over by having a reservoir to hold all the night's sewage, treating it on the beds the next day. This would need fall, though, or pumping.

Its great application is where a not perfectly purified effluent is needed, as, for instance, where the effluent is going to be discharged into the sea or into some large water-course where a sufficient dilution can be had, and where the next town below is a long way off, i.e., far enough to give Nature time to decompose the rest.

Again, it has an advantage where sand cannot easily be got, and artificial beds have to be made. About five or six times less area is required to treat a given quantity of sewage than where sand is used for intermittent filtration. It will treat septic sewage better even than crude sewage, as the septic system has the same use with reference to these beds as to sand beds, doing half the work, only half the quantity of bed is required.

It is a compromise, too, where it would be necessary to pump a sewage to reach sand-beds, where all the handling by a contact system with a very few feet of fall could be done by gravity.

(i) Continuous Filtration. This is another compromise method. It is based on Moncrieff's experiments, which consisted in placing more or less fine coke, or some such material, on shallow trays, seven inches deep, and placing these trays one above the other, with three inches of space between them, to allow of free aeration. The sewage is allowed to pass on to the upper tray, intermittent triangular tipping boxes being used, then through perforations in the tray on to the second, and so on to the third, fourth, and so on even to the last. The organic matter is found by this method to become less and less and gradually more and more mineralized, until when it has reached the last tray no putrescible organic material is left. It shows what aeration and, consequently, oxidation, does, but it is not practicable on a large scale for sewage treatment. Several devices have been put forward to apply this principle on a working basis. The system of Prof. Stoddart has met with most favor. It is said that by this method it is possible to treat 5,000,000 gals. of crude domestic sewage each twenty-four hours on one square acre of bed four feet thick. Double the quantity is said to be treatable if the bed be made of double the above depth. Storm water does not affect its treating capacity. It will treat practically all putrescible manufacturing wastes, provided allowance is made for the quantity of organic matter that is present over and above what is the content of a domestic sewage. It has been found better to apply the sewage after a preliminary septic treatment.

The whole process depends on an uninterrupted supply of oxygen. The construction of the plant is very simple. The filtering material may be various, so long as it is coarse, hard and rough, like clinker, coke, broken brick or stone, the pieces to range in size from two to three inches, and uniform in size throughout the filter. The cheapest on the spot is best.

This is placed on a floor of concrete, with such a slope that water will not rest on it at all. There must, in consequence, be no dust or dirt in the filtering material, as this would hinder the free outflow from the bed. The sewage must be distributed continuously in a fine rain. Prof. Stoddart's distributer is constructed for this purpose. It is made of a series of narrow shallow troughs, notched at the edges to allow of overflow; at the bottom edge nails or iron points are arranged so as to break up the stream.

If it could do what is claimed for it, we should have no more difficulty in treating sewage.

We experimented with a two square yard one, four feet deep, at Berlin. The material was rough clinker, well washed; the outflow was free. The distributor delivered a rather coarse stream on to the bed. It hardly came up to our expectations. The odor about it was always bad. The albuminoid ammonia and oxygen consumption was almost not at all reduced in quantity. By Kjeldahl method the nitrogenous content was reduced. Grossly, there was a decided change. The brown color of the tannins was changed. The sewage, though, having considerable fine suspended matter in it when flowing on the bed, came away quite flocculent, the flocculi soon settling, leaving a fairly clean looking effluent, which, though, was still putrescible. I think it would hardly be possible to run this method in our winter climate.

On the whole, we were much disappointed with the results.

No other continuous method has done better than this one. Some of the towns in England where this method has been worked with have had very little success with it. The results at Horsfield are claimed to be very satisfactory.

It has hardly proved itself one way or the other yet.

(j) Electrolytic Method. Much was promised for this method. It is all right to the extent of what comes in contact with the plates, but what does not passes on without treatment. The method as now constituted is expensive. To a great extent, it merely puts off the evil day, and so far has not been a success.

Profit cannot be made out of any sewage disposal system at present in vogue. But the outlay is not so great to dispose of the waste, as it was for obtaining drinking water.

Report of Work Done at Berlin, Ontario.

The first visit made to Berlin was on March 28. The five days were spent visiting twenty-three of the town's factories. Thirteen of these were found not to give any waste beyond domestic sewage to the system. These thirteen factories included, a glove works, two leather shoe factories, one felt boot factory, a biscuit factory, two iron foundries, three furniture factories, a chemical works, one cloth button factory, and a white goods factory. Ten factories were found to give wastes to the system, peculiar to themselves, and of sufficient importance to be considered separately with reference to their influence on the system. Of these ten factories, there were four tanneries, one gas-works, one brewery, one wool and felt mill, one shirt factory, and, finally, one rubber shoe factory. The following are the findings of these investigations:

1. Rubber Shoe Factory. Here twelve thousand gallons of water is used, some supplied by the town, and an additional quantity pumped by themselves from an artesian well. The crude rubber is crushed and washed in water, merely gravel and coarse vegetable matter, leaves and twigs coming away. All the rest of the process is a dry one. Nothing of a chemical nature of any kind is thrown into the sewers. The water, other than that used to wash the crude rubber, is used for the purpose of cooling the rollers only. The artesian well water here has at times a very strong sulphide odor. No organic waste, then, beyond a domestic sewage comes from this factory.

2. The Shirt Factory. No dying whatever of goods is done here. The goods are made up and then laundered. In this process a large quantity of soap is used. About 12,000 gals. of water a day are taken here. About

the only thing to consider from here is the fat from reduced soap and from the fresh goods, and is not thought to be of such moment as to require any form of treatment at the factory.

3. The Button Works. Here, besides making buttons, a quantity of them are dyed. During the year, a carboy of hydrochloric acid, a small quantity of sulphuric acid, oxalic acid, bichromate of potash, sulphates of iron and copper, and not more than five pounds each of the various aniline dyes are used. The effluent is generally hot, nearly all the dye is exhausted befor being discharged into the sewers. Nothing here at the present time, and in the present quantities used, would cause any serious hindrance to bacterial treatment of the sewage. It is all lost very soon by dilution with the sewage.

4. The Wool and Felt Factory. Foreign and domestic wool, in the raw state, are made up into yarn and woollen goods and felts. Wool rags are also used in the process. Anything infectious in the finished wool is removed by the process. There is nothing, though, to prevent bacteria unkilled passing into the sewers during the preliminary washings given to the rags and raw wool. In washing, and afterwards in fulling, a considerable quantity of soap, sodium carbonate and certain ammonia soap compounds are used, extracting a considerable quantity of fats. No attempt being made to retain them, they go right into the sewer. A great part of the yarns and felts made are dyed on the premises. In the process the greater part of the dyes are exhausted; what goes into the sewers is negligable. The fats from the washing and filling in this factory should be held back from the sewers. A storage basin, giving time for settlement of the sludge, and baffled on the upper surface to catch the fats, would serve the purpose here, and pay for itself probably in the fat held back. What would then go down would be of little consequence.

5. The Brewery. The only waste from here to the sewers is washings from the kegs, barrels, bottles and floors. Considerable finely divided vegetable matter gets into the sewers in this way, and reaches the disposal works. All this material is very tardily putrescible, and is apt to sludge up the beds. Barley husks in considerable quantity may be found at times on those beds receiving crude sewage. With a little care, fine screens would hold this back.

6. The Gas Works. Gas is made here from the volatilization of partly exhausted crude petroleum, scrubbed with water, and freed of considerable of the sulphur compounds by passing over slacked lime. During the scrubbing, the heavier oils are reprecipitated, as it were. It is not as harmful, from a chemical standpoint, to the life of bacteria as the product from coal gas. It appears to be chiefly harmful in that, mixing with particulate matter such as hair, etc., it blocks the sewers, but on filter-bed surfaces one could hardly conceive of anything worse. It scums over the surface, prevents almost absolutely any entrance of oxygen into the bed underneath, and thus defeats seriously aeration, one of the most important parts of a sewage disposal plant, whether broad irrigation, intermittent sand filtration, or, especially, contact-beds.

The creosote substances remaining in solution in the effluent from the works are soon rendered inert by dilution with the sewage. The heavy oils, though, entering and settling at the bottom of the septic tank, may give off a sufficient quantity of antiseptic to, at least, cripple the bacteria in their functions.

A very slipshod attempt is made to hold back these heavy oils at the works; but this summer they were particularly careful, for only on two or

three occasions did they allow any very appreciable amount to come down. But coming down once in a while is still very damaging to any disposal plant. This material is practically non-decomposable. Proper settling tanks, baffled on the surface and at the bottom, if properly looked after at the works, would hold back all this substance. A double set of such tanks should be provided, so that the course of the effluent could be directed to one set whilst the other is being cleaned out. Otherwise, in the process a sufficient quantity to do harm will be certain to escape. If a system of pumping the sewage is finally adopted, this tarry substance will be found still harmful in another way unless the pump be a centrifugal one. The pistons will become fouled, and considerable damage may be done. In one of the cities visited in the Eastern States such a settling tank was introduced at the gas-works, where, so long as care was taken to clean it out regularly and carefully enough to prevent tar getting into the sewers, all went well. Any negligence was immediately felt at the disposal works. In spite of protests, once in a while tar would come down, giving a good deal of trouble, especially with the pumping plant. Finally, the town obliged the gas-works company to seek their own outlet for their sewage, prohibiting entrance into the sewers.

7. The Tanneries. There are four tanneries discharging their wastes into the sewers. Between the four, about 150,000 gals. of sewage, at a low estimate, is being run into the sewers each twenty-four hours during week days. Three classes of leather are produced—harness leather, sole leather, glove and shoe-top leather—and three processes are in operation. For glove and shoe top leather the chrome tanning method is used, and between the two factories using this about 20,000 gals. of effluent is discharged each day. They use between them 70 and 80 carboys of hydrochloric acid in a year, with the necessary amount of potassium bichromate. This substance, the "chloride of chrome," is decidedly antiseptic, and would stop bacterial action; but, fortunately, most of it is exhausted before it reaches the sewers, and, when it does, it is diluted to such an extent that it does little harm.

Both of these factories use moist hides in the process. The hides are first washed and soaked in water. This water is sent into the sewers. There is nothing to prevent pathogenic organisms going on, although, after the liming process that the hides are next subjected to, such organisms are probably killed. These tanners disclaim absolutely using any arsenic in this liming process, though in the Eastern section of the United States such large quantities of sulphide of arsenic are used that, even diluted, it comes to be dangerous. If used as these used, this arsenic would be antiseptic and harmful to any bacterial system of disposal. The lime itself is useful in the sewage, in that it helps to keep it neutral and acts as a precipitant; but, unfortunately, a considerable quantity of it settles in the sewers and gives rise to a good deal of trouble. The third part of the process, the chrome treatment, would destroy any pathogenic bacteria present. The chrome is practically all taken up by the leather, and very little of it goes into the sewers. In this process there are, thus, three classes of effluent, the hide washings, the lime and lime washings, and, finally, the chrome liquor. All these at present are sent into the sewers at different times, and, of course, in varying quantities. The damage done could be greatly neutralized by mixing the whole twenty-four hours sewage, and allowing it to stand; there would settle out a considerable sludge, carrying down a very large percentage of the organic matter present, from 30 to 50 per cent. of it. This would mean a great saving in the way of disposal plant,

and, besides, would remove a great deal of the most obnoxious of the materials given to the sewers by this method. The expense to the manufacturers would be very little, as the plant itself would be simply tank capacity enough to hold the twenty-four hours' sewage. The chemicals would precipitate one another, a comparatively innocuous effluent would leave the place. They, of course, would have to carry away the sludge, and their tanks would have to be constructed so that this could easily be taken out of them. Some return could be made from the sale of the fats gathered at the surface by the baffle boards, and these fats form no negligable quantity either. It would pay to hold and render them.

Sole leather is manufactured from moist and dry hides. Most of the dry hides of these come from foreign countries, chiefly Argentina. "Fallen hides" are unavoidably amongst them. These are dangerous. Of course, all the animals have not died from communicable diseases; unfortunately anthrax hides sometimes find their way amongst them. Two tanneries in Berlin are tanning sole leather. In the case of the moist hides, after washing and soaking in water to rid them of dirt and common salt, they are placed in a lime paste to loosen the hair. They are then washed in water, a good deal of the lime going down the sewers. They are then rid of hair, and treated with an acid, chiefly Sulphuric, and put into a hemlock bark leach, to spend from four to six months in it. This leach is used over and over again, sometimes for two years. The hides after coming out of this are washed in water, the waste going into the sewers. In the smaller of the tanneries the spent leach is sent off into the sewers; at the larger one, and it is very acid here, it is sent off by another route, not entering the sewerage system of Berlin.

When the dry hides are used, they are previously soaked in water to soften them and to get rid of the small quantity of arsenic attached, which has been put there when packing, out of a watering can, to inhibit the growth of moths, etc. It is not sufficient in quantity to act as an antiseptic to the hide. Dr. Ellis says there is so little arsenic present in the vats in which this soaking takes place that cattle could drink the water without getting enough to produce any symptoms of arsenical poisoning in them. This arsenicated water goes into the sewers. It cannot do any harm there, except as a carrier of pathogenic bacteria.

The hides from this are again washed, and finally sweated in a warm room to loosen the hair. After removal of the hair, the hides are placed in an acid solution, and then into the hemlock leach vats. Up to the acid treatment there is nothing to kill pathogenic bacteria. From that out, probably, this takes place, viz., during the acid and tannin treatment. From this place the only tannin solution going into the waters is that washed off the hides after they are taken out of the vats. And this is fortunate for Berlin's sewage disposal plant, for what they send out by their own private methods is extremely acid, and would be decidedly harmful in the sewage. Milk of lime hardly neutralizes it, except when used in great excess. A great waste of acid is going on here. A large quantity of water is used at this place, and nine tenths of it goes into the sewers. They make an attempt to hold back the coarse solids at least, but considerable fine suspended matter gets away to the sewers. This could be held back as well as the fats by a settling basin, without anything further, except to hold the whole twenty four hours' supply. A very large sediment forms in a standing bottle of this sewage.

In the manufacture of harness leather, moist hides entirely are used. These have been cured in common salt. The hides are washed, treated to

lime paste, no arsenic, and the hair removed. They are then placed in a bark leach and changed from vat to vat over months of treatment. The tannins are not used for as great length of time as in the sole leather process. The sewers get the benefit. Usually some one vat is emptied each day, but more especially on two days of the week. These tannin liquors are objectionable, more from the aesthetic than from any other point of view. Nearly all the ground waters about Berlin contain iron, and, of course, blackening takes place as soon as the mixture with this tannin is brought about. The septic tank and the best of the contact beds removed the greater part of these tannins. These tannins are chiefly responsible for the "huckle-berry milk" color which Schneider's Creek water assumes when the sewage enters it. The purplish black precipitate is made up of tannates and gallates, etc., of iron. Hydro-chloric acid will dissolve them up, and they then give a beautiful iron reaction with Pot Thiocyanate. The effluent from this tannery is of three kinds, washings from the hides, lime liquor and tannins in solution. All of these come at different times of the day. We found, experimentally, that the tannins were lost, to an extent, and the organic substances reduced by from 35 to 40 per cent. by merely holding all the effluents together in the one receptacle for twenty-four hours, a considerable sludge settling to the bottom.

No form of settling tank for any of the tanneries with a less capacity than that of the twenty-four hours would be sufficient to be of any value in sedimenting this sewage.

I have found a willingness in all these tanneries to do all that would be required of them to reduce the difficulties from any cause on their part, even to go to the extent of pumping their sewage into such tanks as would be found necessary. There is a glue works, which does not give any effluent to the sewers, however.

After this inspection of the factories was made, the trip to the Eastern States was undertaken. The sewage plants visited were those at Boston, at Andover, at Clinton, two at Hopedale, at Brockton, at Worcester, at Framingham, and the Experimental Station at Lawrence. The greatest kindness was shown me at each of these places, and every facility given me to learn what there was to be learned at each place; and a good deal of inside information was got. Intermittent sand filtration is the favorite down there, and they have good reason in their preference. It shows the best effluent; they have plenty of sand, the labor is small, and need not be over-skilled, though several of these plants have technically trained men in charge of their plants. The plants work about as well in summer as in winter. They have not taken very kindly to the septic tank preliminary treatment. Probably necessity has not driven them to it. Where they have been installed, except at Andover, they are well satisfied, yes, more than satisfied, with the results. At Lawrence, the work is still being faithfully pushed on at the present time, especially along the line of sewage disposal, and there especially with the different bacterial methods, septic tanks, "contact" beds of various kinds of "continuous" and "intermittent" filters. At the time of my visit, six skilled men were working here, besides the unskilled labor about the place. It is a little hive of enthusiasm.

(8) Average Daily Flow at Berlin. This was measured during dry weather and by weiring at the disposal plant. Readings were taken every hour on eleven different days, and showed the quantity arriving during each twenty-four hours to be approximately 450,000 gals. In appearance it varied at different times during the day. From seven to nine o'clock it looked like ordinary domestic sewage, more like dirty dish water than anything else.

From nine until eleven o'clock it became quite reddish in color from the large quantity of tannins contained; from eleven until about two in the afternoon, it became whitish, apparently from lime admixture; from then on it usually showed more or less brownish red coloration to about five or six o'clock, when it gradually became cleaner and less colored, so that at nine or ten o'clock at night it became the clearest and least colored of the day, and is said to remain so during the night, when hardly enough to overflow the large septic tank ran over.

In Berlin there is a special surface drainage system, carrying off surface water and storm water. The four tanneries together give about 150,000 gallons of waste water a day to the sewers. The gas works gives from 12,000 to 15,00 gals. The rubber works sends in about 12,000 to 15,000 gals. per day also. The other factories together give about 20,000 gals. Altogether the factories make up about 200,000 gals., leaving thus about 250,000 gals. of domestic sewage. The population of the town is above 10,000. Not all the town is sewered.

(9) Composition of the Sewage. Thirty-three samples were examined from June 26 to Sept. 4. These were aliquot portions from hourly samples taken at the disposal works from main effluent, on the days indicated in the

Raw Sewage at Berlin.

(Parts in 100,000.)

1902.	Total free ammonia.	Total albumenoid ammonia.	Oxygen consumed.	Chlorine.	Color.
June 26th	3.000	1.500	31.50		Red.
" 28th	3.450	1.890	16.90		"
" 30th	3.885	2 856	69.80		"
July 1st	4.788	4.410	27.43		"
" 2nd	2.772	1 092	22.37		Greyish.*
" 3rd	3.780	3.024	43 40		Red.
" 5th	2.520	2.590	21.50		No color.
" 8th	2.100	2 016	63.00		Red.
" 9th	1.620	1.600	49.70		Little color.
" 11th	1.640	1.320	66.20		Red.
" 12th	1.960	1.680	51 00		"
" 15th	2.530	2.560	49 80	30 0	"
" 16th	2.120	1.460	56.10	86.0	"
" 19th	2.220	1.900	58.60	40 0	"
" 23rd	2.660	2.280	28 40	88.0	"
" 29th	1.360	1.310	52.90		"
Aug. 8th	2 400	1.450	43 40		"
" 9th	2.300	1 450	55.80		"
" 15th	2.600	2.600			"
" 16th	2.600	2 300			"
" 19th	2 325	1 600			"
" 20th	2.100	1.650	40.80		"
" 21st	2.450	1.750	78.80		"
" 22nd	2.225	2.250	54 80		"
" 23rd	2.475	2.025	72 80		"
" 26th	2.700	2.700	49.00		"
" 27th	2 675	1 660	59.60		"
" 28th	2 925	1.625	52 40		"
" 29th	2.150	1.925	85.80		"
" 30th	2.750	2.200	45 80		"
S-pt. 2nd	1.900	2.050			"
" 3rd	2.800	2 100			"
" 4th	2.100	1.750			"
Averages	2.542	2 017	49.95	61.0	

* Public holiday.

subjoined table. These samples were always brown in color except on public holidays and Sundays, and showed considerable sediment from 1-30 to 1-25 of the column. The odor was generally stale and did not vary much. The reaction was never found to be anything but neutral, phenolpthalin, methyl organ, red and blue litmus being used as indicators. Chemically it showed the subjoined composition per 100,000 parts: Free ammonia, 2.542; albuminoid ammonia, 2.017; oxygen consumed, 49.95; chlorine, 61.00.

This on passing into Schneider's Creek blackened almost immediately, due to a fine precipitation of tannates, etc. This precipitate was found to be soluble in hydrochloric acid and to then show a distinct iron reaction with potassium thyocyanate. The water above the sewage farm in Schneider's Creek showed iron to be present. Any of the ground waters about the disposal plant and anywhere else about Berlin that were taken showed iron. Any of the sewage that had run through the town beds showed distinct blackening. None of that from our beds showed it until after some weeks of sewage application. No sewage coming from the septic tanks even showed any appreciable amount of blackening.

(10) Water of Schneider's Creek. During the comparatively dry times the flow of this creek showed about 1,000,000 gals. per 24 hours. Above the sewage disposal plant the water was nearly clear, and showed the following chemical composition per 100,000 parts: Free ammonia, .035; alb. ammonia, .045; oxygen consumed, 3.5; chlorine, 1.0. Below the plant it was invariably blackish in color, sometimes very black and showed the following composition per 100,000 parts: Free ammonia, .875; alb. ammonia, .225; oxygen con., 62.0; chlorine, 18.0.

(11) Uptown Septic Tanks. These tanks (two of them) were placed one above the gas works, the other below, for the purpose of finding if the effluent of the works acted harmfully towards bacterial growth and might thus hinder the treatment of Berlin's sewage. They were started on May 27th. The experiment ceased September 18th.

These tanks were each of 600 gallons capacity, containing a depth of three feet of sewage and being four feet wide. They were each divided into four equal parts by baffle boards dropping down from above and extending up from below, leaving a space between them of about six inches, the space being about one foot below the surface of the sewage and extending all the way across the tank, with the object of holding the sludge at the bottom and the scum above, at the same time allowing the current to run through continuously with little disturbing influence. The rate of flow was about 1,200 gallons per 24 hours for each tank. During the experiment the first compartment, half of the second and about one inch of the bottom of the third filled with sludge. The odor was never bad. Bubbling was always sluggish, and did not commence until June 28th (season was cool), and with the exception of the first compartment the scum was not marked. There was practically no difference in appearance between the two tanks, except that the color below the gas works always seemed better, probably accounted for by the dilution.

From seven a.m. until six p.m., when samples were collected, half hour quantities of affluent and effluent were taken and kept separate. Of these aliquot portions were taken for examination. And in making the examination it was made on unfiltered specimens.

The tank above the gas work removed 40 per cent. of the albuminoid substance and 22.97 of the oxygen consuming material, whilst that below there removed 38.5 per cent. of the albuminoid and 28.4 per cent. of the

oxygen consuming substances. The sewage entering the upper tank was not so diluted as that below, but on the whole the difference is small when allowance is made for difference in affluent, but that difference is in favor of the upper tank, in the albuminoid substances, the more important of the constituents of the sewage. The difference though shows that the gas works effluent is not favorable, but that it is not so to any great extent. The sewage containing it is treatable bacterially at least by anaerobes. The following tables will show the composition of the affluents and effluents for each tank. The averages of these speak for themselves:

Septic Tank Above Gas Works.

(Parts in 100,000).

1902.	Affluent.			1902.	Effluent.		
	Free ammon.	Alb. ammon.	Oxygen consumed.		Free ammon.	Alb. ammon.	Oxygen consumed.
June 27th	3.465	1.890	16 79	June 27th	3 570	2.380	16.43
" 28th	3.360	2.520		" 28th	2.835	1.470	
" 30th	3.885	2.856	69.80	" 30th	3.150	1.686	64.90
July 1st	4 788	4.410	27.43	July 1st	4.620	2.268	15.90
" 3rd	3.780	3.024	43.40	" 3rd	2.940	1.590	28 50
" 5th	2.520	2.590	21 50	" 5th	3.150	2.180	12 30
Sept. 18th		2 950		Sept. 18th		1.100	
" 19th	2.850	3.025		" 19th	3 250	1.650	
" 25th	1.850	1.625		" 25th	2.150	0.925	
" 26th		2 050		" 26th		.900	
Averages	3.312	2.694	35.78	Averages	3.208	1.614	27.60

Change in color throughout.

Capacity of tank 600, run at rate of 1,200 gallons per 24 hours.

Septic Tank Below Gas Works.

(Parts in 100,000.)

1902.	Affluent.			1902.	Effluent.		
	Free ammon.	Alb. ammon.	Oxygen consumed		Free ammon.	Alb. ammon.	Oxygen consumed.
June 27th	3.045	1.417	18.95	June 27th	3.156	1.417	12.24
" 28th	3.780	1.995		" 28th			
" 30th	2 940	2.782	37.50	" 30th	2.410	1.260	32.50
July 1st	3 150	2 856	23.46	July 1st	3 570	1.848	16.60
" 3rd	2.360	2.688	40.20	" 3rd	2.520	1.512	14.80
" 5th	2.390	2 590	16.70	" 5th	2.520	1 340	8.50
Sept. 18th		2.075		Sept. 18th		1.275	
" 19th	2.925	1.400		" 19th	2 850	1 375	
" 26th		2.300		" 26th		.950	
Averages	3 084	2.231	27.36	Averages	2.837	1.372	16 86

Reduction of color always.

Capacity of tank 600 gallons, running at rate of 1,200 gallons per 24 hours.

Results in the Septic Tanks.

In conducting these experiments two tanks were used: one, the tank two years before constructed by the town, with a total capacity of 60,000 gallons, the other one of 1,800 gallons capacity. The smaller tank was a duplicate of the same construction as those uptown in construction and division of compartments, and with the same arrangements of baffle boards. The larger one, as may be seen by the subjoined print, had baffle boards running down from the surface only. The baffling in the small tank was much more successful in arresting suspended matter than that in the large tank, even when making allowance for the difference in flow. The sludge in the smaller tank filled the first chamber and about one foot of the second. There was not more than an inch or two of it in the third. In the large tank all of the grit or first chamber was filled, the proximal floor of the rest did not show more than about 6 or 8 inches of sediment. Both tanks were started on June 26th, the experiments with them ceased on Sept. 4th, when these sludge measurements were made.

The flow through the small tank was continuous, and at the rate of 1,800 gallons per day throughout the experiment. The following table will show the average affluent with the effluent date by date, with the general average of each at the end of the experiment. The average percentage treatment here was for albuminoid substances 53.0, and for oxygen consuming materials, 51.7.

This occurred curiously enough without the production of any unpleasant odor. The gas production was never extremely vigorous, nor was scum formation marked, but compared with the affluent the effluent had lost a considerable quantity, as much as 3-4 of its coloring matter:

Small Septic Tank at Farm.

(Parts in 100 000)

1902.	Affluent.			1902.	Effluent.		
	Free ammon.	Alb. ammon.	Oxygen consumed.		Free ammon.	Alb. ammon.	Oxygen consumed.
June 26th	3.000	1.500	31.50	June 26th	2.500	1.062	11.74
July 8th	2.100	2.016	63.00	July 8th	1.785	1 210	42.80
" 9th	1.620	1.600	49 70	" 9th	.850	.880	19.80
" 11th	1.640	1 320	66.20	" 11th	.850	.840	22.10
" 16th	2.120	1.460	56.10	" 16th	1.180	.740	21.90
" 29th	1 360	1.310	52.90	" 29th	1 620	1.250	31 60
Aug. 8th	2.400	1.450	43 45	Aug. 8th	2.800	1.150	28.40
" 9th	2.300	1.450	55.80	" 9th	3.000	.750	13 20
" 15th	2.600	2.600		" 15th	2.400	1.000	
" 16th	2.600	2.300		" 16th	1.500	.575	
" 19th	2 325	1.600		" 19th	2.050	.675	
" 20th	2 160	1 650	40 80	" 20th	2.075	.975	32 00
" 21th	2.450	1 750	78.80	" 21st	2.350	1.150	23.60
" 22nd	2 225	2 250	56 80	" 22nd	1 375	.760	39.60
" 23rd	2.475	2 025	72 80	" 23rd	1 705	.700	29.60
" 26th	2.700	2 760	49 00	" 26th	2.075	1.025	30.20
" 27th	2.675	1.600	59.60	" 27th	1.800	1.050	20 20
" 28th	2.925	1.625	52.40	" 28th	2.125	.975	37.20
" 29th	2 150	1 925	85 80	" 29th	1.825	.850	30 80
" 30th	2.750	2.200	45.80	" 30th	2 100	.925	33.80
Sept. 2nd	1.900	2.050		Sept. 2nd	2 550	.550	
" 3rd	2 800	2.100		" 3rd	2 450	.800	
" 4th	2.100	1.750		" 4th	2.475	1.050	
Averages	2 317	1.835	57.08	Averages	1.966	.860	27 56

Capacity 1,800 gallons. 1,800 gallons run through per 24 hours.

The Large Septic Tank.

The large septic tank had just been emptied of sludge when the experiment began. It did not show any advantage over the smaller one in the time of commencing treatment. Bubbles appeared on both about the same time after the warm weather began. Seeding here, apparently, at least, had no advantage. Of course there must be taken into account the much larger bulk of sewage. The resting place for the bacteria being the surfaces of the tank and the contained sludge, the fluid moving out rapidly gave them much less chance to perform their work. This tank, whose capacity was 60,000 gallons, was run at the rate of 100,000 gallons per 24 hours. There was no odor. The removal of color was never as good as in the smaller tank, and there was always more suspended matter in its effluent than in the smaller tank. The bubbling was about the same in both. There was very little scum—hardly as much as in the smaller tank.

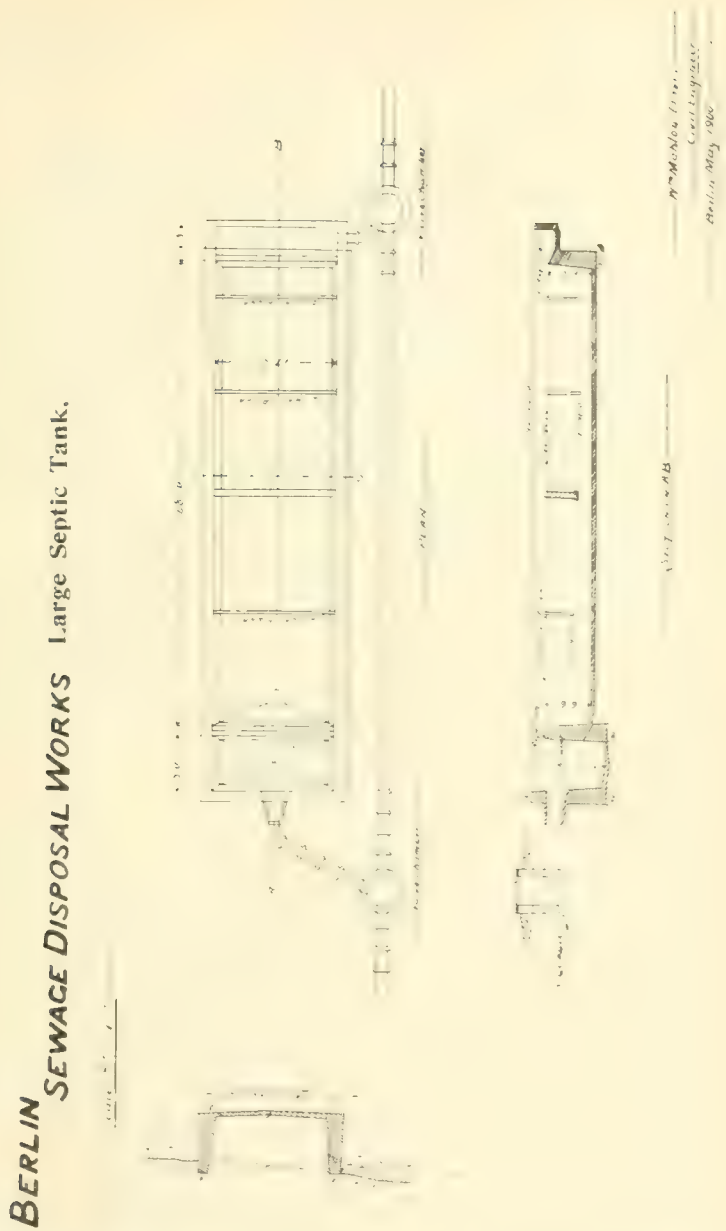
In the following table will be found the chemical composition of the affluents and effluents throughout the experiment. The average percentage treatment here was for albuminoid substances, 45.5, and for oxygen consuming substances, 40.6.

Large Septic Tank.

(Parts per 100,000)

1902.	Affluent.			1902.	Effluent.		
	Free ammon.	Alb. ammon.	Oxygen consumed.		Free ammon.	Alb. ammon	Oxygen consumed.
June 26th	3.000	1.500	31.50	June 26th	3.000	1.375	10.45
July 3rd	.....	.....	.....	July 3rd	2.940	1.260	19.47
" 8th	2.100	2.016	63.00	" 8th	1.800	1.176	47.10
" 9th	1.620	1.600	49.70	" 9th	1.357	.874	18.50
" 11th	1.640	1.320	66.20	" 11th	1.270	.864	16.20
" 12th	1.960	1.680	51.00	" 12th	1.160	1.190	53 70
" 15th	2.530	2.560	49 80	" 15th	1.820	1.260	40.40
" 19th	2.220	1.900	58.60	" 19th	2.240	1.240	38.30
" 23rd	2 660	2.280	28.40	" 23rd	2.140	1.160	25.00
" 29th	1.360	1.310	52.90	" 29th	.980	.728	21.00
Aug. 8th	2.400	1.450	43 40	Aug. 8th	2.450	.950	28.60
" 9th	2.300	1.450	55.80	" 9 h	1 900	.650	26.60
" 15th	2.600	2.600	.....	" 15th	2.100	1.350	.....
" 16th	2.600	2.300	.....	" 16th	2.200	.950	.....
" 19th	2 325	1.600	.....	" 19th	2 975	1.050	.....
" 20th	2.100	1.650	40 80	" 20th	2.250	1.175	28.80
" 21st	2.450	1.750	78 80	" 21st	2 475	1.125	39.10
" 22nd	2.225	2.250	54 80	" 22nd	1.750	1.265	49.00
" 23rd	2.475	2.025	72.80	" 23rd	2.175	.950	36.80
" 26th	2.700	2.700	49.00	" 26th	2.650	.925	49.75
" 27th	2.675	1.600	59.60	" 27th	2.650	1.150	32.00
" 28th	2.925	1.625	52.40	" 28th	2.650	1.100	36.60
" 29th	2 150	1.925	85 80	" 29th	2.250	1.025	34.00
" 30th	2.750	2.200	45 80	" 30th	2.900	1.025	28 60
Sept. 2nd	1.900	2.050	.....	Sept 2nd	3.250	925	.....
" 3rd	2.800	2.100	.....	" 3rd	3 050	.775	.....
" 4th	2.100	1.750	.....	" 4th	2 250	.925	.....
Averages	2.329	1.930	54 48	Averages	2.223	1.057	32.37

Capacity, 60,000 gals. 100,000 gals. run through each twenty-four hours.



There is thus a difference of 7.5 per cent in the removal of albuminoid substance and 10.1 per cent. of oxygen consuming material in favor of not running a septic tank at Berlin above its capacity for the 24 hours. It would seem enough to repay the outlay made in supplying more tankage capacity.

The treatment obtained in both these tanks shows that septic tank treatment here is very well up to the best obtained at other places. The advantage in our experiments here was that both tanks were large, espe-

cially the larger one, and we were able to get results more nearly approaching what might be expected in the practical disposal of sewage.

Contact Beds.

There were four of them. Three of these had contact material of gravel and were covered to a depth of 3 inches with a coarse, sharp sand to screen affluent. The gravel in each of the three beds was of different sizes. This was done with the idea of seeing what difference size of material would have in the treatment obtained. The gravel was screened quite clear of sand and dirt of any kind. It was placed in each bed in a three-foot deep layer, the bottom of the bed being underdrained with 4-inch tile, coarse gravel being placed around the tile in a layer about 2 inches thick. These three beds had each an area equal to one two-hundredth of an acre. The banks and bottom of the beds were of clay, fortunately found in situ; any sandy seams present were dug out and tamped well with clay to prevent leakage. Boxes with sliding gates were placed to control the effluents. These three beds were finished and started on July 8th, the experiment with them was continued until Sept. 4th. It was nearly two weeks after starting before they commenced to remove the tannin color of the affluent, which had been always in the effluent of the large septic tank.

The bed with the smallest material was the first to change the tannins and always did it best, the least efficient of the beds being that with the coarsest gravel. In the effluent of this last there was always left a certain tannin coloration. Consultation of the subjoined tables will show the interspace capacity of each bed, the rate at which run and the composition of the affluent and the effluent from date to date and at the end the averages of each. At no time was the effluent from any of these beds nonputrescible. The bed with the finest gravel gave always the best effluent, the coarsest the least treated, though the nitrate results were best in the coarsest bed when they were made.

During the first part of the experiment the beds were filled 3 times each day, during the second period only twice a day. It will be noted in the tables that there is no appreciable difference in the results of the treatment, whether two or three applications a day were made. The sand on the surface of the beds had to be raked over every few days otherwise it was found that the sewage could not go down into the beds. In collecting the samples, the affluents were sampled three times whilst running on, the effluents were taken three times whilst running off. The results from the three cycles or two as the case might be, were mixed together, affluent with affluent, effluent with effluent and aliquot portions taken for examination.

The interspace capacity of all the beds was probably reduced during the experiment. No. 1 showed a reduction of one-eleventh. It was the only one measured.

The percentage reduction in each bed over affluent was:

	Free ammonia.	Albuminoid ammonia.	Oxygen consumed.
No. 1	40 per cent.	34 4 per cent.	51 per cent.
No. 2.....	30.3 "	42 3 "	51.7 "
No. 3	33 6 "	27.8 "	44 5 "

The best bed leaves an average effluent showing per 100,00 parts:

Free ammonia.	Albuminoid ammonia.	Oxygen compound.
1.562	.592	16.43

Thus there is shown a percentage reduction from the crude sewage of:

Free ammonia.	Albuminoid.	Oxygen compound.
32.8 per cent.	68.8 per cent.	70.3 per cent.

The septic tank has done more than two thirds of the work.

Contact Bed I.

1/200 acre. (Parts per 100,000.) Quarter inch gravel.

1902.	Affluent. Total free ammon.	Total alb. ammon.	Oxygen consumed.	1902.	Effluent. Total free ammon.	Total alb. ammon.	Oxygen consumed.
July 8th	1.785	1.210	42 80	July 8th	1.260	.630	24.00
" 16th	1.180	.740	21.90	" 16th	.760	.670	14.90
" 23rd	2.140	1.160	25.00	" 23rd	.530	.640	8.70
" 29th	1.300	1.039	26.30	" 29th	1.330	.490	27 00
Aug. 8th	2.450	.950	28.60	Aug. 8th	1.400	.650	10.40
" 9th	1 900	.650	26.60	" 9th	900	.350	11.20
" 15th	2.100	1.350		" 15th	1.700	.825	
" 16th	2.200	.950		" 16th	1.525	.550	
" 19th	2.975	1.050		" 19th	2.250	.600	
" 20th	2.250	1.175	28.80	" 20th	1.475	.700	29.30
" 21st	2.475	1.125	39.10	" 21st	1.200	1.100	14.20
" 22nd	1.750	1.265	49.00	" 22nd	.950	.555	17.60
" 23rd	2.175	.950	36 80	" 23rd	.955	.500	14.60
" 26th	2.650	.925	49.75	" 26th	1.525	.775	15.00
" 27th	2.650	1.150	32.00	" 27th	1.325	.575	12.40
" 28th	2 650	1.100	36.60	" 28th	1.275	.575	12 40
" 29th	2.250	1.025	34.00	" 29th	1.575	.550	20.40
" 30th	2.900	1.025	28.60	" 30th			
Sept. 2nd	3.250	.925		Sept. 2nd	2.400	.450	
" 3rd	3.050	.775		" 3rd	1.950	.500	
" 4th	2.252	.925		" 4th	1.375	675	
Averages	2.306	1.022	33 72	Averages	1.383	.678	16 59

Interspace capacity 234,400 gals. per acre. Run at three times this rate for first half of experiment per acre per day. Run at twice this rate for second half of experiment per acre per day.

Contact Bed II.

1/200 acre. (Parts per 100,000.) One-eighth inch gravel.

1902.	Affluent. Total free ammon.	Total alb. ammon	Oxygen consumed.	1902.	Effluent. Total free ammon.	Total alb. ammon.	Oxygen consumed.
July 8th	1.800	1.176	47 10	July 8th	1.470	.580	19.70
" 15th	1.820	1.260	40.40	" 15th	.960	.460	9.10
" 16th	1.800	1.206	40.04	" 16th	.660	.560	12 10
" 19th	2.240	1.249	38.30	" 19th	640	.680	18.60
" 23rd	2.140	1.160	25.00	" 23rd	.780	.800	9.20
" 29th	.980	.728	21.00	" 29th	.730	.500	26.80
Aug. 8th	2.450	.950	28 60	Aug. 8th	1.400	.650	11 60
" 9th	1.900	.650	26 60	" 9th	.900	.300	8 00
" 15th	2.100	1.350		" 15th	2 200	.900	
" 16th	2.200	.950		" 16th	2.150	.575	
" 19th	2.975	1.050		" 19th	2.925	.800	
" 20th	2.250	1.175	28.80	" 20th	1.725	.475	28.70
" 21st	2.475	1.125	39.10	" 21st	1.475	.660	15.20
" 22nd	1.750	1 265	49.00	" 22nd	1.150		21.00
" 23rd	2.175	.950	36.80	" 23rd	1 170	.500	
" 26th	2.650	.925	49.75	" 26th	1.725	.700	18.50
" 27th	2.650	1.150	32.00	" 27th	1.475	.650	11.60
" 28th	2.650	1.100	36.60	" 28th	1.475	.525	12.60
" 29th	2 250	1.025	34 00	" 29th	1.675	.575	17.60
" 30th	2 900	1.025	28.60	" 30th	2.050	.575	22.60
Sept. 2nd	3.250	.925		Sept. 2nd	2.650	.450	
" 3rd	3.050	.775		" 3rd	2.800	.550	
" 4th	2.250	.925		" 4th	1.750	.650	
Averages	2.247	1.042	34.21	Averages	1.562	.596	16.43

Interspace capacity, 187,400 gals. per acre. Run at three times this rate for first half of experiment per acre per day. Run at twice this rate for second half of experiment per acre per day.

Contact Bed III.

1 200 acre (Parts per 100 000) ½-inch gravel.

1902.	Affluent. Total free ammon.	Total alb. ammon.	Oxygen consumed.	1902.	Effluent. Total free ammon.	Total alb. ammon.	Oxygen consumed.
July 8th	1.800	1.176	47.10	July 8th	1.680	.610	19.10
" 12th	1.160	1.190	53.70	" 12th	.300	.740	26.50
" 15th	1.820	1.260	40.40	" 15th	1.260	.620	17.20
" 19th	2.240	1.240	38.30	" 19th	1.090	1.000	25.90
" 23rd	2.140	1 160	25.00	" 23rd	1.340	.960	15.90
" 29th	.980	.728	21 00	" 29th	1.320	.880	51.30
Aug. 8th	2.450	.950	28.60	Aug. 8th	1.700	.650	10.60
" 9th	1.900	.650	26 60	" 9th	1.000	.350	17.40
" 15th	2.100	1.350		" 15th	1.650	.925	
" 16th	2.200	.950		" 16th	1.650	.575	
" 19th	2.975	1.050		" 19th	2.100	1.725	
" 20th	2.250	1.175	28 80	" 20th	1.425	.575	26.30
" 21st	2.475	1.125	39.10	" 21st	1.425	.825	21.00
" 22nd	1.750	1.265	49 00	" 22nd	1.060	.805	20.00
" 23rd	2.175	.950	36.80	" 23rd	1.225	.750	
" 26th	2.650	.925	49.75	" 26th	1.150	.650	13.00
" 27th	2.650	1.150	32.00	" 27th	1.350	.700	11.60
" 28th	2.650	1.100	36 60	" 28th	1.400	.800	14.40
" 29th	2 250	1.025	34.00	" 29th	1.700	.675	20.40
" 30th	2.900	1.025	28.60	" 30th	1.975	.700	10.60
Sept 2nd	3 250	.925		Sept. 2nd	2.150	.575	
" 3rd	3.050	.775		" 3rd	2 400	.600	
" 4th	2.250	.925		" 4th	2.200	.850	
Averages	2 262	1.041	36 19	Averages	1.502	.758	20.07

Interspace capacity, 257,800 gallons per acre.
Run at three times this rate for first half of experiment, per acre per day.
Run at twice this rate for second half of experiment, per acre per day.

Coke Contact Bed.

This was of the same depth as the gravel beds and was constructed and drained in the same way. The coke was of a specially

Coke Bed.

(Parts per 100,009.)

1902.	Affluent. Free ammon.	Alb ammon.	Oxygen consumed.	1902.	Effluent. Free ammon.	Alb. ammon.	Oxygen consumed.
Aug. 8th	2.800	1.150	28 40	Aug. 8th	2.500	.850	22.00
" 9th	3.000	.750	13 20	" 9th	1.700	.600	49 00
" 15th	2.100	1.350		" 15th	2.250	1.150	
" 16th	2.200	.950		" 16th	2.050	.750	
" 19th	2.975	1.050		" 19th	2 550	.975	
" 20th	2.250	1.175	28 80	" 20th	1.950	1.000	12.20
" 21st	2 475	1.125	39.10	" 21st	1.900	.925	24.60
" 22nd	1.750	1.265	49.00	" 22nd	1.975	1.200	39.20
" 23rd	2.175	.950	36.80	" 23rd	1.700	.725	
" 26th	2 650	.925	49.75	" 26th	2.625	1.050	24.50
" 27th	2 650	1.150	32.00	" 27th	1 775	1.125	53 80
" 28th	2.650	1.100	36.60	" 28th	2.625	1.125	29.40
" 29th	2.250	1.025	34.00	" 29th	2.150	.975	22.40
" 30th	2.900	1.025	28.60	" 30th	2.900	1.025	15.20
Sept. 2nd	3.250	.925		Sept. 2nd	3.000	.850	
" 3rd	3.050	.775		" 3rd	3.400	.600	
" 4th	2.250	.925		" 4th	2.425	1.000	
Averages	2.551	1.036	33.27	Averages	2.327	.936	29.23

Interspace capacity, per acre, 356,000 gallons. Run at the rate of 712,000 gallons per acre per day.

hard form in pieces of 1 inch in size. It had an area of one-eight hundredth of an acre. It was finished and started on August 8th, and finished with on September 4th. It took a week's working before its effluent showed any reduction of the color of the affluent. The effluent as shown by the subjoined table was not satisfactory. Its interspace capacity was 356,000 gallons per acre, and it was run at the rate of 712,000 gallons per acre per day.

During the week beginning September 15 we tried reapplying the effluent of this bed to it again having pumped it into barrels. Curiously, the second effluents showed more albuminoid ammonia than the first effluent, very like what happened continuously with the Stoddart continuous filter

Stoddart Continuous Filter. This bed was made of 2 sq. yards area, 4 feet deep of well washed coarse 3-inch hard clinkers, placed on a sloping board foundation, with no walls, except the back one. It was fed with septic sewage from the large septic tank continuously in a rain by an imitation of Stoddart's distributer. Drawings of the bed may be seen by referring to the accompanying scaled sketch of the experimental plant at the disposal farm. The sewage was poured on this at the rate of 5,000,000 gallons per acre per day. The color was rendered black and instead of a fine precipitate as was in affluent, a flocculent one came away with the effluent. The odor about the bed was decidedly offensive. A large growth of low vegetable matter, but not enough to obstruct the bed, soon took possession. The effluent showed more albuminoid ammonia than went into it. A Kjeldahl estimation showed a decrease in the organic nitrogen coming off to that going on, this might possibly be the origin of the increased albuminoid ammonia, the rest having gone off in gases.

In appearance the effluent was certainly changed. It was still putrescible though; but it had lost its tannin color, and after settling showed a pretty clear supernatant fluid. The following table will show what was done in this bed:

Stoddard Continuous Filter.

(Parts per 100,000)

1902.	Affluent. Free ammon.	Alb. ammon.	Oxygen consumed.	1902.	Effluent. Free ammon.	Alb. ammon.	Oxygen consumed.
Aug. 8th	2.450	.950	28.60	Aug. 8th	2.000	.950	35.60
" 9th	1 900	.650	26.60	" 9th	1.700	1 150	22.40
" 15th	2.100	1.350		" 15th	2 400	1.350	
" 16th	2.200	.950		" 16th	2.400	1.150	
" 19th	2.975	1.050		" 19th	3.300	1.550	
" 20th	2.500	1.400	10.00	" 20th	2.275	.925	13.30
" 21st	2.875	1.000	34 80	" 21st	2.100	1.350	30.40
" 22nd	1.750	1.250	49.00	" 22nd	1 875	1.350	32.00
" 23rd	2.150	1.300		" 23 d	2.150	.900	
" 26th	2 850	1.125	29 50	" 26th	2 550	1.550	23 50
" 27th	2.650	1.150	32 00	" 27th	1.675	.925	27.40
" 28th	2.650	1.100	36 60	" 28th	2.200	1.200	27.80
" 29th	2.550	1.100	36.00	" 29th	2 100	1.650	32 80
" 30th	3.000	1 125	42 00	" 30th	2.000	1.500	46.00
Sept. 2nd	3.050	.750		Sept. 2nd	2.350	.675	
" 3rd	3.050	.800		" 3rd	1.550	1.025	
" 4th	2.450	1.125		" 4th	2.050	1.150	
Averages	2.538	1.069	30 52	Averages	2 151	1 191	29.12

Run at rate of 5,000,000 gallons per 24 hours per acre.

Town Bed.

July 15th	1.820	1.260	40.40	July 15th	1.350	.400	12.80

Sand in Neighborhood of Farm.—The hills in the neighborhood of the farm were visted from time to time in order to determine their composition. Test holes were dug in several places. Sand of an excellent quality was found both in the east and the west of the sewage farm. At a very small depth below the surface not more than from eighteen to twenty-five inches and usually much less. In several of the holes a thin stratum of sandy clay about half an inch thick was found at about 20 inches below the surface of the sand in the hills to the west, but only very few such spots were found in hills to the east of the farm. The sand to the east is decidedly the better. On the surface it seems very fine but after a few inches is quite coarse and sharp. This clay stratum might hinder free aeration of the beds if they should be constructed there.

Many acres more than sufficient to treat twice Berlin's present sewage could be made into beds on these hills.

Tannery Waste. The whole day effluent from the harness leather tannery was examined on five occasions and gave the following average composition per 100,000: Free ammonia, 3.20; albuminoid ammonia, 5.25; oxygen consumed, 122.4. By using an experimental sedimentation by means of two 40 gallon barrels, baffled after the metallurgists' principle, viz., allowing the fluid to enter into a small narrow chamber open at the bottom and leading into a much larger one, the solids rising against the head of water, are more likely to remain at the bottom, from this first barrel the effluent overflowing into a second divided in the same way. The average effluent was as follows in parts per 100,000: Free ammonia, 2.183; albuminoid ammonia, 3.15; oxygen consumed, 111.0, thus showing a reduction of 40 per cent. in the albuminoid substances by a mere sedimentation process allowing the compounds to react on one another, in a simple retention space. The oxygen consuming materials did not show the same or any considerable reduction at all, though the comparative colors of affluent and effluent showed a decided reduction in favor of the effluent.

By using alum on the tannin liquor before allowing it to enter the general mixture with 15 grains of alum to each gallon of liquor an almost complete removal of tannins could be made, with besides an additional reduction of albuminoid substances to the extent of 10.12 per cent. Sulphate of iron gave the same result, but had the disadvantage of producing an objectionable black color in the effluent.

Conclusions Based on Experiments Regarding Berlin's Sewage Disposal Problem.

The average sewage of Berlin shows per 100,000 parts:

Free ammonia.	Albuminoid ammonia.	Oxygen consumed.
2.542	2.017	49.95

The average large septic tank effluent, 60,000 gallons capacity, treating 100,000 gals. per day, shows:

Free ammonia.	Albuminoid ammonia.	Oxygen consumed.
2.223	1.057	32.37

The average small septic tank effluent, 1,800 gals. capacity, treating 1,800 gals. per day, shows:

Free ammonia.	Albuminoid ammonia.	Oxygen consumed.
1.966	.860	27.56

The average of the bed giving best results on treating 562,000 gals. per acre per day shows an effluent containing:

Free ammonia.	Albuminoid ammonia.	Oxygen consumed.
1.562	.596	16.43

A good water should approach the following composition:

Free ammonia.	Albuminoid ammonia.	Oxygen consumed.
.003	.005	.115

A water from peaty soils may contain:

Free ammonia.	Albuminoid ammonia.	Oxygen consumed.
.005	.023	.740

In a stream diluting 3 times a sewage effluent containing:

Free ammania.	Albuminoid ammonia.	Oxygen consumed.
.015	.069	2.220

Might be allowed to enter.

Into a stream diluting 10 times, a sewage effluent containing:

Free ammonia.	Albuminoid ammonia.	Oxygen consumed.
.05	.23	7.400

Might be allowed to enter.

The gas works effluent (gas being made from petroleum), after removal of the tarry products, may be discharged into the sewers.

The tarry material if allowed to enter would render any bacterial oxidation beds useless. Settling tanks, on the gas premises, baffled at bottom and surface, with a capacity of at least a half day's sewage, would hold this back. A small side tank of the same construction should be present to treat it whilst the larger is being cleaned.

The tanneries yield considerable organic matter that could be held back, to as large an extent as 40 per cent, with tank settling capacity equal to the 24 hours sewage flow.

Schneider's Creek, which receives the effluent, is very small, having a dry weather capacity of probably not more than 1,000,000 gallons a day. There is not enough water to dilute the effluent given by septic tanks and contact beds to the recognized standard of a tolerated drinking water.

Enough sandy land to give intermittent sand filtration to all Berlin's sewage for the present and probably years to come can be got in the immediate vicinity of the farm.

To reach such sand pumping would be required. A reservoir to hold the whole 24 hours sewage could be constructed. In this way all the pumping could be done in a few hours.

Septic tanks as an auxiliary could be used in connection with this intermittent sand filtration to reduce the quantity of organic mater to be treated and to the extent of work done would reduce the quantity of land required to purify the sewage to the required standard.

Were such a sand filtration method adopted, the septic tank capacity for the present sewage flow should not be less than 450,000 gallons.

On such sand beds as could be got at Berlin sand filtration elsewhere gives an effluent equal to the required standard. JOHN A. AMYOT.

PART II.

CHAIRMAN'S ANNUAL ADDRESS.

By H. E. Vaux, M.D., Toronto.

February 12, 1903.

To the Members of the Provincial Board of Health :

Gentlemen : On reassembling for this, the first session of the year, it is with sincere thankfulness that, as a Board, we can do so in the enjoyment of health and strength.

The year 1902 has not been marked by any epidemic of formidable character, although certain diseases are, like the poor, "always with us."

As the years roll by and sanitation becomes more of a fixed science, we find that our grasp of the essentials becomes more firm, and consequently results are more apparent and more prompt.

Through the kindness of our Secretary, I am able to lay before you some statistics showing the number of deaths from communicable diseases during the year, based upon a return from 90 per cent. of the population. The total deaths from all causes amount to 25,208, or an average of 12.8 per 1,000. There has been a mortality from tuberculosis of 2,164 ; diphtheria, 444 ; typhoid fever, 363 ; scarlet fever, 282 ; whooping cough, 144 ; measles, 106.

On comparing the number of deaths from contagious diseases in 1901 and 1902, we find a slight reduction on the whole. Thus, in tuberculosis there is a decrease of 122 ; measles, 14 ; diphtheria, 68 ; increase in scarlet fever of 73, and whooping cough, 32.

The cool, wet summer has probably much to do with bringing about this improved condition.

Several valuable reports have been laid before us during the year by the Standing Committees, by Dr. Bryce, and by Drs. Oldright and Cassidy, who attended the Tuberculosis Conferences as our delegates to New York and Ottawa.

I do not intend to do more than call your attention to and ask your careful study of what these reports so fully deal with.

Those on tuberculosis naturally claim first place in view of the heavy mortality. In these reports compulsory notification, isolation, disinfection of rooms lately occupied by consumptives, disinfection of sputum, and generally strict attention to well recognized hygienic measures for the prevention of contagion, at the same time care being taken that public antagonism is not aroused by too radical measures being adopted at first, are all fully emphasized. With this disease the old adage, "prevention is better than cure" is increasingly proved to be true. Almost at the moment that positive assurance is given that tuberculosis is curable, reports come to us from eminent authorities that some apparent cures are only temporary, and that a large proportion of those who fondly hoped that they had conquered their foe have been doomed to disappointment by a return of their malady. While this may be true, yet in our experience, personal hygiene and the hygiene of dwellings, shops, schools, and factories will be found to exercise a far greater influence on the reduction of mortality from tuberculosis than will result from segregation in sanatoria.

The Smallpox situation has certainly vastly improved since I had the honor of presenting my last Annual Address, and the very radical measures adopted in dealing with the sanitation of lumber camps have already, by their results, shown the wisdom of our Secretary's prompt action.

The Committee on Epidemics has also laid before us a report on necessary sanitary precautions, which it is advisable should be observed in barber shops. This is a matter which has forced its attention on sanitarians, and we are glad to know that the barbers are equally anxious, with ourselves, to close every avenue of danger, so far as their shops are concerned. This being the case, it cannot be very long before the excellent recommendations made by the Committee are carried into effect.

The reports of the Committee on Sewerage are of very great importance, and should be given our special attention, more especially the one dealing with Berlin sewage, taken in conjunction with Dr. Amyot's exhaustive report, which was laid over for consideration until this meeting of our Board.

You will remember that in response to the appeal made by the Mayors of several municipalities, the Government consented to conduct a series of experiments last summer in connection with the Berlin sewage farm, Dr. Amyot being placed in charge. It is now for you to formulate such deductions from the results of his work, as may indicate to Berlin and other similarly situated places, some solution of the great difficulties with which they have to contend.

In closing, I would desire to point to some of the results which have been secured by the adoption of better sanitary measures in dealing with sewage in suburban houses, and, in fact, wherever other safe means of disposal cannot be adopted, notably in summer resorts, where it is absolutely essential that the lakes and rivers should not be contaminated.

The report of our Secretary, Dr. Bryce, on this subject in the last Annual Report of the Board, gives his plan in detail, and I am glad to be able to state that it appears to work admirably in practice. Thus, at the Royal Hotel at Muskoka last summer, the sewage, even when the hotel was crowded, was disposed of without any contamination of the lakes, and in the City of Brantford at the Pork Packing establishment from 15,000 to 20,000 gallons per diem is successfully disposed of.

All of which is respectfully submitted.

HARRY E. VAUX,
Chairman.

I. QUARTERLY REPORT OF THE SECRETARY.

Toronto, April 9, 1902.

Mr. Chairman and Members of the Provincial Board of Health :

Gentlemen : Your Secretary begs to report that the general health of the Province during the past quarter has been more than usually satisfactory for the period of year. It has in a remarkable degree been free from those epidemics of influenza, which have, unfortunately, marked so many of the winters during the past twelve years. The month of March shows a decrease in the Toronto returns, while the comparative mortality for the Province as a whole is seen in the submitted Bulletins for January and February. Here and there outbreaks of diphtheria and scarlatina have been reported ; but, except in one area, that of the Parry Sound district, the deaths have not been excessive. An unfortunate outbreak of scarlatina occurred in lumber camps in Hagerman and adjoining townships before Christmas, which was spread by men leaving camp for their homes, and carrying disease with them, resulting in numerous cases, and a considerable number of deaths—in one instance a whole family of six being swept away. The district was visited by the Medical Inspector of the Board, Dr. Hodgetts, and the provisions of the Regulations for Unorganized Districts were enforced, the outbreak having since been suppressed. A serious outbreak of diphtheria, resulting in several deaths in a single house, was reported in March from Denbigh Township, in North Frontenac. Fortunately, with the increasing settlements, medical aid is being brought nearer, as the people on the frontier settlements are becoming better off, and these melancholy accidents are fewer ; but they are still sufficiently frequent to make one wish that medica aid were more available for the poorer people in the sparsely settled districts. During the winter similar reports of smallpox outbreaks in families in Unorganized Territories have been received ; and the problem of how far the interests of victims of the disease and of the general public should be promoted without the Board's directly undertaking to supply medical aid, has caused your Secretary considerable thought. The supervision directly by the Board of the Northern Districts last year led persons to suppose that they had only to report themselves, and that they then could get medical attention supplied ; while the physicians of those districts, naturally thinking it easier to collect fees from the Board than from such patients, have endeavored, in some cases, to have the Board guarantee attendance in private families. The mild type of the disease, has, however mitigated what under other circumstances would have resulted in serious misfortune, and it is pleasing to relate that no fatal results from neglect of such cases have been reported.

Smallpox. The quarter's reports of the prevalence of smallpox have just been completed, and the following statement sets forth the total cases which have occurred in Jaunary, February and March of 1892 :

In January there were 629, in February 707, and in March 302, while the summarized totals since the beginning of 1901 were in all 3,517.

The January report showed that with the start given in the lumbering districts before inspection began in October, a considerable number of cases had broken out in camps, but that they were notably lessening under the

strict inspection instituted by your officers, and the general compliance on the part of lumbermen with the regulations requiring them to employ medical men. In all some sixty firms throughout the Province have complied with the regulations, and, except in a few instances, have not only succeeded in preventing the men leaving camp and carrying disease with them, but also in stamping out the disease in the camps. Some of the difficulties were :

1. The primary difficulty, apart from the neglect to have medical men engaged for the camps, has been the neglect of the regulations, both by the men and companies, regarding compulsory vaccination. The companies state that the men refused to comply, and they, rather than lose men when employees were scarce, engaged them contrary to law.

2. That this should have occurred is not to be wondered at ; but that the companies should have, in many instances, allowed the neglect to continue till one man after another had been infected, is the more remarkable, since, as has happened in several camps, the disease was allowed to burn itself out, over 40 cases in one or two camps having occurred.

3. To the natural dislike of some of the men to vaccination was added the belief that either they would escape, and not lose even a day or two by vaccination, and that if they had it, they probably would not take it badly.

4. Early in March the circular herewith shown was sent to owners, managers, physicians, and many municipalities, and, judging by results, has had a very remarkable effect, since scarcely an instance has yet occurred of men leaving camps which had been infected and carrying the disease out with them, although it would be too much to expect that some outbreaks will not follow their return home.

5. In view,however, of the many miles' distance of some of the camps from the nearest practitioner, and the practical impossibility of his doing justice in some cases to the men in a camp, who are required to pay 50 cents to $1 per month per man, it will demand some arrangement by which 5th year medical men be allowed to practice under some regular practitioner, as is done in most railway construction camps, if the complaints of the men in some cases are to be removed.

6. How thorough the work of supervision in the camps in the Sudbury district has been is seen in the fact that only some six cases have drifted on to the railway and been corralled in the tent hospital ; while two of these have been Americans who have escaped undetected the quarantine officers at the "Soo."

The question naturally arises, whence these have come. Of the many hundreds of cases recorded during the past winter, I have endeavored to obtain the sources of the first cases in the different outbreaks, but have not yet succeeded in locating it in some instances. The sources have been fairly equally divided between direct importations by persons returning home from or visiting in Michigan, Minnesota, or Dakota, and returning harvesters from Manitoba. As there does not appear to have been any notable prevalence of the disease in Manitoba, so far as it can be learned, it seems most probable, and, indeed, in some cases certain, that returning harvesters were infected on the trains en route between Manitoba and Chicago. Very few are known to have been exposed en route by the C.P.R.

A reference to the table is of interest, as indicating some of the outbreaks ; but those of Stephen, Hay, and Usborne, in South Huron ; of East and West Wawanosh, in North Huron ; of Bruce, Kincardine, and Greenock Townships, in Bruce County ; of the Ekfrid, Lobo, and other cases in Middlesex ; of the Dover, Chatham, Raleigh, Harwich, and Tilbury cases, in Kent, and of Puslinch, Flamboro', etc., in Wellington, may all be cited as

outbreaks, due directly to the persons so returning through or from the United States ; and which, as seen in the table of cases, resulted in some instances in very widespread outbreaks, due to neglect to early diagnose the disease by physicians, or in some cases to even call in a physician when the first case was mild.

The history of a single outbreak in Puslinch, Wellington, is sufficiently illustrative to be worth citing.

At the eastern end of the Province, the cases have grouped themselves about Ottawa, as an early centre, in the Ottawa district, but other sources, especially from the Quebec side, below Ottawa, have not been infrequent. Several outbreaks, too, have been traced into the St. Lawrence counties, from New York State, in returning shantymen, as in Cornwall, Charlottenburg, Lancaster, etc. The central part of the Province, in the territory radiating from Toronto, has been very largely free of the disease ; and from this, doubtless, has arisen much of the immunity of a large urban centre. The disease has this season been essentially one of the rural districts, excepting Ottawa and Chatham, and has scarcely at all appeared in the commercial classes, the travelling portions of which seem to be very particular in view of the constant exposure, to keep well vaccinated.

In view of much that has been learned of the unvaccinated character of the greater part of our communities where smallpox has occurred during the past 15 months, and of the almost universal neglect to carry out the routine requirements of the Vaccination Act by municipalities, the situation imperatively demands that the Act be recast and simplified, with a view to insuring that all children be vaccinated, or at any rate that it be offered them within the first year ; that a list of such be recorded, and that later, should they present themselves for entrance into the public schools, that evidence of successful vaccination shall be a *sine-qua-non* to admission to the advantages of schools maintained by Government grants. The present methods of compulsory vaccination, wherever the disease is present, are admirably suited to meet the emergency.

Many questions have naturally arisen during these outbreaks as to the legal requirements in the matter of quarantine and isolation, and the maintenance of persons when so isolated. The Public Health Act and Regulations are very explicit on most of these points; but it may not be generally appreciated that the turning of the house of the person affected into a municipal hospital for the time being is directly contrary both to good practice and to the smallpox regulations. Law suits regarding the liability for damages by the municipality have already been instituted, and will probably still more frequently occur if the practice is not stopped.

Every outbreak proves incontestably the invariable wisdom of the practice of at once establishing a temporary hospital, tent or building, to receive not alone patients, but suspects separately, where they can be maintained at their own cost, with the invariable results that such means, and such alone, are likely to promptly stamp out the disease.

The disease again seems to be on the decline, and it is hoped that the coming month may see its practical disappearance for the season from the Province.

All of which is respectfully submitted.

P. H. BRYCE.

II. QUARTERLY REPORT OF THE SECRETARY.

September 10th, 1902.

To the Chairman and Members of the Provincial Board of Health :

Gentlemen : Your Secretary takes pleasure, in reporting upon the sanitary condition of the Province during the past quarter, to state that an unusual freedom from the diseases incident to the summer months has existed, owing, doubtless, to the cool weather and abundant rainfall. The comparative deaths are seen in the attached Bulletins for June and July.

The outbreaks of Smallpox reported at the last meeting of the Board to be declining may be said for the moment to be practically stamped out. During the months of June, July and August cases have existed in the following centres :

Table of Smallpox.

	Total municipalities.	Total cases.
June	29	211
July	18	46
August	9	39

The dangers of a reappearance of the disease in the northern lumber camps cannot be overlooked; but such far-reaching steps have been taken to prevent this that it is hoped and expected that few cases will appear this season.

Early in July the lumbermen of the Ottawa district, after conference, signed an agreement upon which none of the signatories would engage for their shanties men not vaccinated. They invited your secretary and the officer of the Quebec Board to meet them at Ottawa, and as a result the Quebec Board undertook to secure the action which had already been taken by your Secretary in sending out copies of the following poster and circulars to all lumbermen, and to all parts where men were engaged for their camps.

NOTICE TO EMPLOYERS OF LABOR AND EMPLOYEES

IN THE

UNORGANIZED DISTRICTS OF THE PROVINCE OF ONTARIO.

Shantymen, Miners and other Employees of Lumbering Camps, Mining Camps, Sawmills, Smelting Works and any other Industry, or any Railway Construction Camp, are hereby notified and cautioned by *The Provincial Board of Health* under the "Act respecting the Sanitary Regulations in Unorganized Territories," Chap. 34, 1 Edward VII., that it is required :—

I. That all owners, managers, agents or foremen, or other person in charge of any lumbering camp, mining camp, or other industry, employ only vaccinated persons, and that all employees are equally required to comply with the Regulations.

II. That all employers of labor shall contract with a medical practitioner for their employees and works, and are authorized to deduct from the pay due any employee a sum not less than 50 cents and not exceeding $1.00 per month.

III. That an hospital for the care of the sick must be provided by every employer, and that the men are entitled not only to regular treatment therein, but also to have the camps and surroundings inspected regularly and maintained in good sanitary condition.

IV. That failure on the part of any person to comply with any Regulation of the Provincial Board of Health renders him liable to the penalties provided in the Act.

Signed,

P. H. BRYCE, M.D.,

Toronto, June 30th, 1902. Secretary, Provincial Board of Health.

Extracts from the Regulations for the Sanitary Control of Unorganized Districts.

Reg. 1.—The owner, manager, agent or foreman of any lumbering camp, mining camp, sawmill, smelting works or other industry, or of any railway construction camp located in any district without municipal organization shall, in connection with every such industry or works, be responsible for the proper execution and enforcement of any regulation herein contained, or of any clause of any Health Act governing in any case or circumstance.

Reg. 4.—In connection with every camp, works or dwellings coming under these Regulations, there shall be constructed a building, or, in lieu thereof, a double-walled tent shall be kept on hand with floor or floors and with facilities for heating and ventilation, equal to those provided in the example herein described, for the reception of any employees who may become sick ; and should any disease of a contagious nature, as defined by the Public Health Act, break out, the hospital building or tent must be located by the physician in charge of the patient, in a position satisfactory to any health officer authorized to inspect the camp or works.

Reg. 5.—Every camp or the works of any industry coming under these Regulations shall be equipped with a separate building to be used as a washouse or laundry, and attached thereto a room, or, if preferred, a separate building or tent, equipped with a stove and tubs for bath purposes, in a manner satisfactory to any health officer authorized to inspect the camps or works.

Reg. 6.—Every camp or works coming under these Regulations shall be supplied with a building or tent properly constructed and set apart as a kitchen or cook-house, and having a dining-room or eating-room in connection therewith, with proper conveniences for the cleanliness and comfort of employees, and must be satisfactory to the health officer authorized to inspect the camp or works.

Reg. 12.—Employers of labor on works in the districts without municipal organization shall contract with one or more qualified medical practitioners for the medical and sanitary supervision of their employees and works ; and are hereby authorized to deduct from the pay due any employee, a sum not less than 50 cents and not to exceed one dollar ($1.00) per month, which shall be paid the physician ; and he shall inspect the camps, dwellings or works at least once a month, and oftener if on the decision of the authorized health officer the health conditions of any camp or works or dwelling require it, and shall supply medical attendance and medicine to the employees.

Reg. 13.—The owner, manager, agent or foreman, or other person in charge of any lumbering camp, mining camp, or other industry on which men are employed, shall require a certificate of recent successful vaccination of each employee when he is engaged by the company or its agent ; and where evidence is not forthcoming, it shall be their duty, before employing any person, to obtain evidence of such vaccination.

Reg. 14.—Should any suspected communicable disease as defined under the Public Health Act break out in any camp, works or dwelling, the employer or his employee or agent in charge of any camp, works or dwelling, shall immediately send notice to the physician employed, who shall at once notify the Provincial Board of Health, or some officer thereof, of the outbreak. The employer or his employee or agent in charge of any camp, works or dwelling shall, equally with the physician employed, be responsible for any neglect to notify the Provincial Health authorities.

Reg. 16.—Every measure required to be taken by a Local Board of Health or any medical health officer, sanitary inspector or other health officer under the Public Health Act, or any Regulation made thereunder in any organized municipality, must at once be taken by the employer and his employees or agents, or the physician employed by the same, whenever any suspected communicable disease included therein breaks out in any camp, works or dwelling to which these Regulations apply. Any neglect on the part of any employer, manager, foreman or agent or the physician employed, shall be punishable in the manner provided by the Public Health Act.

As many companies are already at work in the woods, the absence of reports of any outbreaks leads to the belief that the action taken has had very happy results. The ready co-operation in the Ottawa district has made it all the easier for your officers to urge the enforcement of similar methods in the western areas of the Province. So far as known, those of the great areas between North Bay and the Sault, in the Georgian Bay district, are complying in every way with the spirit of the Act, and Dr. Hodgetts, who has recently spent some time in the district, is much satisfied with the action taken. The steady improvement of the sanitary conditions of the camps goes on, and

new camps are being built according to the rules of the Board.

Scarlatina. The necessity for special regulations regarding scarlatina would seem to be called for by the appearance at several points of outbreaks of more than the usual virulence. Especially is this true regarding an outbreak in Lindsay in June and July, resulting in 11 deaths. Strong measures have eventually stamped out the disease.

Typhoid fever has appeared in a few sections, but only in isolated instances. The climatic causes, already mentioned, may be credited with this immunity. Especially is this freedom to be noted in those temporary aggregations of people at summer resorts. The steady progress of education in m thod- of s wage disposal goes on, and not a few installations of the septic tank, with sub-surface tiles, in hotels and private residences has gone on, and are proving very successful. The work of installing new systems of waterworks and sewerage systems goes on throughout the Province, and laboratory analysis of a number of proposed town supplies have been made, and the formal plans will, in a number of towns, shortly be submitted for approval.

Reports of the special and standing committees will be presented.

All of which is respectfully submitted.

P. H. BRYCE.

Secretary.

III. QUARTERLY REPORT OF THE SECRETARY.

November 26, 1902.

Mr. Chairman and Gentlemen: The public health of Ontario has continued to be good since the last quarterly report of the Board. The prevalence of no disease has been high or unusual. The cold, wet summer has been favorable to a low prevalence of typhoid, as may be seen from the tables of the Monthly Bulletin; but there have been several limited outbreaks of a severe type, showing the existence of conditions relative to well-pollution, indicative of a great lack still of popular knowledge as to the causes which bring about outbreaks of well typhoid.

The special reports on Sault Ste. Marie, Burk's Falls, Niagara Falls, and Tyrone are all illustrative of the fact that a very notable proportion of the public are ignorant and careless as to the nature and character of the filth which surrounds them in its relations to health, and that Local Boards of Health seem, as at present constituted, strangely ignorant or indifferent as regards the enforcement of laws which lie at the very beginning of good municipal health work. As remarked before, the council which appoints too often either its own members or persons who are incapable of independent and intelligent action, seems in the majority of instances to be incapable of appreciating the economic value of good health measures, and hesitates to exercise in any thorough way those powers for preventing nuisances, and remedying defective structures, as well as privies, etc., which are the alpha and omega of routine public health work.

The ridiculous sums set apart for public health work, as seen in the annual returns, fully illustrate the need for some notable change in the methods; and, as your Secretary has frequently observed, (1) the enlarging of the municipal health unit, (2) permanency of tenure of officers, (3) and adequate com-

pensation for trained officers, such as is provided by the recent legislation of England, are a [illegible] to progressive and efficient public health work, whether in Ontario or elsewhere.

Smallpox. The table herewith submitted shows how satisfactory the situation as regards smallpox has been during the quarter :

It is apparent, however, from the last fortnight's reports, that we are to again see during the coming winter a recrudescence of smallpox, which it is to be feared will be of an old-time type as regards severity. In Cleveland during the past five months some 1,079 cases and 186 deaths have occurred up to November 8th, and within a few weeks 20 cases of hemorrhagic type had each proved fatal. Detroit has 50 or more cases in hospital, and others, it is believed, are being hidden. Most of the cases there have been mild. At last report 12 families and 20 cases are in quarantine at Port Huron, while the present week reports a recrudescence at Rochester of what previously proved a virulent type of smallpox—50 cases being reported to be there. Several centres have in the meantime devloped in Ontario, one or two the outcome of cases of last spring, as in Caradoc in Middlesex, Bayham in Elgin, Torbolton Township in Renfrew, and Waterloo Township, while others have been brought in from the Province of Quebec to Ottawa, to South Plantagenet, and Fitzroy Township. Others have been introduced by way of the United States to Toronto, to Anderdon, to Tecumseh in Essex, St. Catharines, etc. So it is apparent that the disease is prevalent across the Border. Ohio has had since June 2,600 cases and 248 deaths, while from October 11 to November 8 there were 319 cases in 34 deaths in 56 municipalities. Michigan has many cases and a few deaths to November 23, while New York State had at last returns many cases and some deaths. The Board may, therefore, look upon the relative immunity of the Province with much satisfaction, while at the same time exercising all vigilance to maintain the present excellent condition.

The evidence of the past three years has been amply sufficient to show that the Act re vaccination is, so far as regards the appointment annually of public vaccinators by councils or Local Boards of Health, as in the great majority of instances, wholly neglected. The result of this is that year by year there is growing up a population largely unvaccinated, while its aggregation in the cities and towns is with each decade more pronounced. There are to-day some 45 per cent of the population of Ontario in cities, towns, and villages.

Thus the dangers of the spread of smallpox will increase proportionately, and we may expect gradually to develop conditions such as those of the great cities of the United States, which, as Boston, New York, and Philadelphia, were only protected last year against a devastating epidemic by compulsory vaccination of the whole population. Boston used some 500,000 vaccine points, and Philadelphia 1,000,000 last year.

Such facts make it evident that some radical change ought to be made whereby the utter indifference of councils to the statute requiring them to have all children vaccinated within four months of birth may be overcome by some more simple and practical scheme.

It has occurred to your Secretary that if the present Act were repealed and an Act of three or four sections were passed providing that

1. The Clerk supply a specially appointed officer, for instance, the Medical Officer, with the names of all children born during the previous six months; and that such officer be required to visit at their homes these children, and offer free vaccination.

2. Should there be a refusal, the duty would then devolve upon the parent of having the child vaccinated, at his expense, before it could be

admitted into any school, public or private; and the vaccination officer would be further required to visit every school and vaccinate all not already vaccinated.

3. A third clause containing the provisions of the present clause 8 of the Smallpox Regulations providing for compulsory vaccination whenever a case of smallpox exists in a municipality, would constitute practically the whole Act. There would be, in addition, a single clause providing for regulations being passed arranging the details for carrying out the work of vaccination, and supplying the Provincial Board of Health with certified lists of all children or persons vaccinated during any year.

It will be apparent that by such a method the work would be systematized, while the at times not unreasonable objections to the present absence of system in performing the important compulsory operation would be removed.

By it vaccine could be used at all times when fresh, and the children vaccinated would be supervised by a single officer, who not only would be responsible for his own work, but as a public official would be in a position to obtain and supply information regarding the quality of the lymph used.

Diphtheria: The prevalence of this disease has been small this autumn, due in part to the favorable season, and further to the constant care which is now exercised in case the disease appears. Antitoxin becomes more and more a routine measure of value both in treating the disease and in prophylaxis.

Scarlatina: While nowhere prevalent, has appeared with fatal results in a few instances.

Anthrax: The appearance of anthrax in several new centres in the Province, in cattle has become a subject of remark; and it is to be regretted that some more systematic means than is being carried out at present is not adopted for investigating the source of first cases.

The seeding of pastures from the overflow of infected streams seems to have been the cause of most first outbreaks; but whence have come several other outbreaks is not so apparent.

The problem is an important one, and in relation to the economic side of public health work, has a high importance.

A number of nuisances, such as knackeries, and slaughter houses, and cattle yards, have called for attention during the quarter, and have been variously dealt with, as will appear in the correspondence.

All of which is respectfully submitted.

P. H. BRYCE,
Secretary.

IV. QUARTERLY REPORT OF THE SECRETARY.

Feb. 11th, 1903.

To the Chairman and Members of the Provincial Board of Health:

Gentlemen: I beg herewith to submit the principal points of interest relating to the work of the Board during the past quarter, as relate to outbreaks of diseases. Since the Board met last on November 27th, the public health has remained fairly good, with two exceptions, viz., the prevalence

of smallpox and of scarlatina, both of virulent form, which we, fortunately, for some time hitherto have been free from.

The following synopsis of smallpox, prepared by Dr. Hodgetts, Medical Inspector of the Board, sets forth the situation as regards smallpox. In December the Province, compared with the previous year, showed a smaller number of cases and outbreaks.

Dr. Hodgetts' report of January shows that the same may be said; but, nevertheless, the number of outbreaks, and especially their character, have given your officers cause for anxiety, especially since the outbreak at Galt, having obtained headway, and having been the source of the disease in several other municipalities, the extent to which the disease might extend was for a time in doubt. How extended have been the exposures has been apparent from the statistics just presented.

The activity of the Local Board and its medical officer in Galt, since the character of the outbreak was realized, has been very satisfactory. There was some delay in getting the isolation hospital complete; but the town has now a permanent and very complete isolation building, which has enabled the Local Board to have all cases removed, and the quarantine raised on the houses in the town.

More than 5,000 people had been vaccinated in a town of 8,000 during January, and the Local Board are continuing to push the compulsory work with vigor.

The virulence in the type of disease throughout the Province, as your officers have reported from time to time, has been assuming a character not seen since 1900 in the cases from the Orient. Five deaths have occurred in Galt within a fortnight, two in Preston, one in Toronto, and two on St. Joseph's Island, in Jocelyn Township, while the character of those in many of the other outbreaks is of almost normal virulence.

The generally unvaccinated character of the younger population of the Province is, unfortunately, too well exemplified in the history of the several outbreaks set forth in the report of Dr. Hodgetts, just presented, and found printed later as a separate report.

The delicate and scientific discrimination of the *contagium vivum* of variola in selecting its victims from the innocent sufferers of parents' neglect—it cannot in the light of a century be called ignorance—to have their children vaccinated, affords much food for thought on the part of persons who may have doubted the efficiency of vaccination in protecting against smallpox.

The continued presence, and at times prevalence, of smallpox in the Province for four consecutive years must afford every citizen serious cause for consideration as to how long the expenditures which it entails, quite apart from the loss of health and danger to life of the patient, the serious family loss through the quarantine of thousands of persons for several weeks, the cost of disinfection, the charges for nursing and physicians, and, more than this, the cost to the municipality for physicians, Medical Health Officers and police, are to continue. It will be remembered that it was estimated on the basis of returns made at the end of 1901 from a large percentage of municipalities that some $450,000 had been expended in that year to suppress smallpox, wholly apart from the loss to individuals or the expenditures by the Government. This was probably equalled in 1902, if we take the total cases as a guide in 1902, the total cases reported having been 2,486.

In the face of such facts it is a remarkable commentary on the inertia of municipal authorities, that, although since 1863 there has been on the Statutes a Vaccination Act, requiring that the municipal councils year by year provide for the vaccination of all children born during the year, so far

as your Secretary is aware there is not in the Province a single instance at the date of writing where a municipality has at the beginning of the year appointed a public vaccinator and stations as referred to by the Act for the vaccination of the young children; and there is no instance where any attempt has been made to determine by a statistical report how many infants born in any municipality during the past year have been vaccinated.

We have instances, it is true, as where Ottawa, in view of the great commercial loss the city was sustaining, went systematically to work within the autumn of 1901 and vaccinated some 20,000, and promptly stayed the spread of the epidemic; when suddenly some politic alderman moved that the epidemic of vaccination be stayed, and it was stayed forthwith; and we have had Galt boycotted by neighboring towns, with losses to trade mounting up to many thousands of dollars, pressing the compulsory clauses of the Smallpox Regulations, and vaccinating practically the whole population.

We have seen Deseronto, in 1901, when a single case of smallpox appeared, having the whole population vaccinated within a fortnight in the interests of business, and this practically prevented the possibility of other cases, as with numerous exposures from the Indian Reserve recently, but one case is reported as occurring in the town; and we further have had the township of South Plantagenet, with numerous cases of smallpox, where the municipal council was neglecting the disease, instructed in the end of November, that if they did not at once appoint a Medical Health Officer with compulsory powers to vaccinate during an epidemic, to vaccinate generally, the Provincial Board of Health would be forced to do it at the township's expense.

These are illustrations of what, except in the case of Deseronto, has been done after smallpox has become prevalent; but, excepting Toronto, Windsor, Walkerville, Sarnia, and perhaps a few other cities, where children must present a certificate of vaccination before they are admitted to the public and separate schools, the very knowledge of the existence of a Public Vaccination Act seems to be unknown, as regards its provisions, by the councillors and Boards of Health of most of our municipalities. It is quite apparent from the illustrations given that the belief and opinion of the great body of the public is behind the medical profession in its attitude as to vaccination; but it is equally plain that the years of freedom, since the great epidemic in Montreal in 1885, when public fear made vaccination general, up to 1899, when the mild epidemic appeared, have allowed in this matter public attention, and with it municipal action, to drift entirely away from their duties under the Vaccination Act. The tendency is a natural one, perhaps; but, as the facts of the past three years show, no closing of our eyes will remove the dangers, while any country where commerce and travel, with the increase of urban populations, are making such strides, must increasingly be exposed to smallpox, if it allows its young population to grow up unvaccinated.

It would seem apparent, therefore, that however adequate the provisions of the Vaccination Act, which has existed for 40 years, were, when passed, they are not of such a character as to harmonize with the organization of public health work as it has existed for twenty years under the Public Health Act. Under these circumstances it seems desirable that the Act be recast so that its machinery may readily and systematically be put in operation, so that the children born in any year, and those of school age, may be vaccinated by competent medical officers appointed as public vaccinators, acting under clearly defined instructions, whereby at the least inconvenience to the parents, a well-vaccinated community may grow up protected against the inevitable introduction of smallpox along an ever increasing number of avenues.

which by the position of the Province, as the great pathway of commerce, from the east to the west and northwest, it must more and more continue to develop.

It is hoped that a short Bill, which at a later session will be presented by the Committee on Legislation, will fulfil the requirements indicated.

Scarlatina. The reports from different parts of the Province show that during the past six months this disease has appeared in a number of centres with a virulence which has not for many years been equalled in this Province. For instance :

In 1902.	Cases.	Deaths.
Toronto had	701	88
Ottawa	689	50
Blenheim	4	1
Windsor	30	3
Clinton	10	10
Peterborough	100	15
Mulmur	3	3
Lindsay	31	10
Durham	0	4
Alfred Township	75	6
Puslinch	4	4
Fort William	70	13
Hintonburg	87	7
Erin	2	5

Other places return a number of cases, but with a mortality similar to that of past years. Thus :

	Cases.	Deaths.
Hamilton had	97	3
Berlin	21	1
Brockville	30	0
Dresden	7	1
Galt	5	0
Schreiber	24	3

From these illustrations it appears that in the death rate in the 12 cities, which have made returns the rate was 9 per cent., while in Toronto it was 12.5 per cent., and in Ottawa 7.4 per cent. The malignity of type is illustrated by there having been 21 deaths in 106 cases in Toronto in January, 1903, and 13 in Peterboro', in December in 21 cases. In some of the other places which have made returns it would appear that all the cases have died ; but doubtless this must be explained by the fact that the cases occurring have not been returned.

The increase in virulence is well illustrated by comparing the figures in Toronto with those in the epidemic of 1897, when during the first six months, with the total cases 1,138, there were but 63 deaths, or a rate of 5.5 per cent.

These figures are illustrative of the fact that scarlatina is a disease more remarkable for variation in type than probably any other of the infectious diseases which prevail in temperate climates.

Sydenham, in the 17th century, writing of scarlatina, spoke of it as hardly deserving the name of a disease ; but in the quinquennium, 1861-65, it caused a mortality of 1.11 per 1,000 in London, England.

The frightful mortality caused by scarlet fever in England may be judged from the following statement of deaths from the Registrar-General's Report for 1874:

1855	17,314	1866	11,685
1856	14,160	1867	12,300
1857	14,429	1868	21,912
1858	30,317	1869	27,641
1859	19,407	1870	32,543
1860	9,681		Also 24,000 of smallpox
186	9,077	1871	18,567
1862	14,834	1872	11,922
1863	30,475	1873	15,144
1864	29 700	1874	24,922
1865	17,700		

The same virulent type apparently prevailed in Ontario at the same time, for the imperfect statistics of the time give the following results:

1871	630 deaths	1882	543 deaths
1872	642 deaths	1883	405 deaths
1877	717 deaths	1884	382 deaths

How the disease has on the whole declined in its fatal character during these years is indicated in the table of deaths by years, although a part of the lowered death rate must be attributed to better isolation and disinfection.

The broad historical fact, however, exists that it is a disease of remarkable character. Dr. Caiger, in Albutt's System of Medicine, says: "All the records of scarlatinal epidemics in the past go to prove that the fatality of the disease in different outbreaks has been subject to enormous variation"; and this opinion is confirmed, up to a certain point, by our own experience at the present day.

This variation in fatality is marked, not only in epidemics widely separated both in time and locality, but also in outbreaks which have been simultaneously prevalent in contiguous localities. The type of the disease may, however, remain constant for many years in a particular locality. Trousseau, too, reports that Bretonneau had never seen a death from scarlet fever in Paris from the year 1799 to 1822; but that in the year 1824, the disease prevailed in a most malignant form in the town and surrounding district. Graves, speaking of the Dublin epidemic in 1802, states that the disease prevailed in a most malignant form, while it was followed with a mild type for 27 years, after which it again became malignant.

We have thus historically illustrated the variations in type of a disease in which the mortality has varied in different outbreaks from 2 to 30 per cent. of cases; and with the type now confronting us in Toronto and other places, it is apparent that the Province is face to face with a situation more serious than anything that has appeared, in so far as the disease is concerned, within the past 20 years. It may be proper to briefly recall some of the features of the disease.

The Cause of Scarlatina. It would appear that quite recent investigations have shown that the germ of the disease belongs to the group allied to streptococci, which are noted for the great variations in type as regards virulence, suddenly increasing, and almost as suddenly falling away in virulence. The persistency of the infection when closed up in clothing, in dust, or in dark spaces, is very remarkable, though the virus seems readily destroyed by disinfectants properly used.

A Disease of Children. While it is essentially a disease of childhood, it must be remembered that many grown persons are immunes because of having had it during childhood. It is, however, especially fatal amongst children.

In the London Metropolitan Asylums, Board Hospitals, with 10,000 cases treated annually, the case mortality was, between 1871-1893:

Under 5 years.....	19,595	18.2 per cent mortality.
5 to 10 years.....	28,763	5.6 per cent. mortality.
10 to 15 years.....	12,444	2.6 per cent. mortality.

The Infectiousness and Period of Incubation of the Disease. The disease is infectious within the first twelve hours of its onset to susceptible young children, and the onset is commonly within 4 days after exposure, but in young children is generally not longer than 2 days, while Dr. Caiger, of the Metropolitan Hospitals, states, after seeing thousands of cases annually: "I have never met with an instance where there was any valid reason to believe that the period has been longer than 6 days."

The disease is contagious for a period varying in different cases; but Dr. Caiger says: "It is a good rule in practice to regard six weeks from the rash as the minimum length of quarantine; and the length of time beyond this will be dependent upon the end of peeling, and upon the cessation of any discharges from the ears, nose, eyes, a mucous cavity or wound of any description." An ear discharge may certainly retain infection for a period of six months; and the desquamation, though usually complete in six or eight weeks, may persist and be contagious for a period of three or four months. The average number of days' residence in hospital of the 14,143 cases treated in the Metropolitan (London) hospitals in 1901 was 59.72 days, including deaths, or 62.48 days of all who recovered. The mortality was only 3.82 per cent. Of course, it is apparent that the complications of scarlet fever will be great in proportion to the severity of the disease; and as we have at present to deal with a remarkable increase in the virulence of the disease, it becomes necessary that special attention should be drawn to these special causes of infection. What proportion these complications bear to the total cases, even with a mild type of the disease, is set forth statistically in the last London Report. For instance, of otitis, or discharging ears, there were 13.78 per cent.; albumenurea, 7 per cent.; adentitis, or involvement of glands, 7.2 per cent.; nephritis, or kidney disease, 4 per cent.; diphtheria, 2.7 per cent. Let the virulence of disease be increased, so that instead of 4 per cent. of deaths we have 20 per cent., and it is apparent that complications will be greatly increased. Viewed from the standpoints, 1st, of prevention, 2nd, of lessening the mortality, and 3rd, of reducing the various serious secondary effect of the disease, your Board is to face with a problem even more serious than that of dealing with smallpox for the following reasons:

1st. Because of its generally mild character till within the past year.

2nd. Because the strongest argument, that of injury to business, is not so potent in the case of a disease which is peculiarly one of childhood and youth.

3rd. That we have not any known prophylactic means like vaccination at our command.

4th. That the long period of necessary isolation is very irksome to both patients and householders, and there is a proportionate tendency on the part of parents, and sometimes through them of some physicians, to make light of or even secrete, or misname the disease to prevent notification, isolation and placarding.

5th. That while municipalities will readily arrange for a separate building or hospital for smallpox, many are slow to supply the same for scarlet fever and diphtheria, leaving cases to be treated in their homes, with the common result that all the children in the house take the disease, and

should the parent be allowed to go to business, there is the not infrequent danger of the disease being carried outside.

6th. The extreme contagiousness of the disease to susceptible children from its onset, and hence the danger of a mild case with sore throat being the cause, directly or indirectly, of its spread through the schools, and especially amongst the younger children.

The following are a few illustrative instances of outbreaks which have been investigated by your officers or reported by Medical Health Officers. Your Committee on Contagious Diseases, therefore, with a view to coping with the disease, has prepared the appended regulations for the approval of the Board, to the end of having them make an Order-in-Council for the guidance of Local Boards of Health in dealing with outbreaks of scarlatina.

All of which is respectfully submitted.

P. H. BRYCE.

REPORT OF THE COMMITTEE OF EPIDEMICS RE COMPULSORY NOTIFICATION OF CASES OF CONSUMPTION.

Toronto, November 26th, 1902.

To the Chairman and Members of the Provincial Board of Health :

Gentlemen : As you are aware, your committee have on several occasions made representations in favor of the compulsory notification of cases of tuberculosis by local physicians to the Medical Health Officer, and these recommendations have also been endorsed by this Board. For instance, the Committee on Epidemics of the Provincial Board of Health of Ontario issued, June 19th, 1900, the following circular containing, among other instructions, a copy of resolutions passed by this Board dealing with the problem of limiting the spread of tuberculosis, and especially of that more prevalent and contagious form of it known as consumption. That circular states:

Moved by Dr. Cassidy, seconded by Dr. Bryce :

1st. That as tuberculosis is a contagious and infectious disease, all inmates of Provincial institutions who are affected with this disease should be isolated in wards set apart for such patients, and not be permitted to associate generally with other inmates.

2nd. That when rooms or wards which have been occupied by consumptive patients become vacant, they should be disinfected according to the methods set forth by the Provincial Board of Health, in the pamphlet issued by it containing rules for checking the spread of contagious disease.

3rd. That an individual affected with tuberculosis and living in a private family should be isolated, as much as possible, from other members of the household, especial care being taken in the destruction of his expectorations.

4th. That when the room occupied by such a patient becomes vacant, it should be thoroughly disinfected, and, as a matter of prevention, the whole dwelling should be disinfected according to the instructions in the pamphlet regarding disinfection issued by the Provincial Board of Health, and that such other precautions be taken as are provided in Section 101 of the Public Health Act (1897).

5th. That the Local Boards of Health be urged to establish rules for the notification of cases of tuberculosis to the Medical Health Officer, or to the Secretary of the Local Board of Health of the municipality.

While your committee are of opinion that the opinions expressed and the advice given on the first four sections of the above resolutions have been of great use in instructing the public as to the communicable nature of tuberculosis, and the necessity of taking proper precautions to prevent its dissemination, we regret that, up to the present time, none of the Local Boards of Health in Ontario, with one exception, have undertaken to establish rules for the notification of cases of tuberculosis to the Medical Health Officer.

The exception referred to is the City of Hamilton. Understanding that the Local Board of Health of that city favored the establishment of a by-law providing for the notification of cases of tuberculosis to the Medical Health Officer, a member of your committee wrote to Dr. Walter F. Langrill, M. H. O., Hamilton, asking for information on this question. His reply is as follows:

Hamilton, Ont., Nov. 5th, 1902.

Dear Dr. Cassidy:

The by-law is not yet in force, but has been endorsed by the Board of Health, and will be submitted to the City Council at its next meeting. I

recently read a paper before the Hamilton Medical Society, which includes two-thirds of the practitioners in the city, and they were practically unanimous in favor of compulsory notification. I think the process of enforcement of such a law must be developmental. After registration I would take no action if the physician would agree to instruct the patient in proper methods of disposal of sputum, etc., and distribute the literature supplied by the Board of Health, but, of course, requiring owners of apartments to renovate, and the Board will disinfect after change of address or death. In the report required from physicians this question will be asked, "Do you wish an inspector to visit the premises, and instruct the family regarding prophylaxis; answer Yes or No," the understanding being that if the answer be No that the physician will adopt and supervise the necessary measures himself. In this way the better class of people will not be antagonized, and, moreover, among this class action by sanitary authorities is not so much needed, since they live in large houses and good sanitary conditions prevail. Physicians also take more pains in instructing the families in prophylaxis. Among the poor and so-called laboring classes I expect the physicians will look to the Health Department to take action. In such cases the premises will be inspected, instructions given as to preventive measures to be adopted, and literature left. This inspection will be repeated at regular intervals. After death or removal the apartments will be disinfected and renovation required. I do not anticipate in this city any trouble in the enforcement of the by-law if discrimination be used. The only thing to fear is that physicians will neglect to report, through indifference and carelessness. They will require stirring up from time to time. I expect the same results as in typhoid. Every year I have reminded physicians of their duty in reporting typhoid, and yet, I think, only about 75 per cent. of cases are reported. I must say I have not felt like prosecuting as in the case of diphtheria, scarlet fever or smallpox. I do not by any means look for complete results from this by-law, but I think much good can be accomplished. If you have any objections to such a by-law, or any suggestion to offer, I would be pleased, if not too much trouble, for you to write me. Yours very truly,

WALTER F. LANGRILL,

Medical Health Officer.

In reply to a letter informing Dr. Langrill that the members of the Committee of Epidemics of the Provincial Board of Health of Ontario had already, as per circular quoted above, advocated the notification of cases of tuberculosis to the M. H. O., and that, therefore, the passage of the contemplated by-law in Hamilton would be agreeable to the Provincial Board of Health, and, furthermore, requesting information as to the probable date of the next meeting of the Hamilton Council, Dr. Langrill sent the following letter:

Hamilton, Ont., November 17th, 1902.

Dr. J. J. Cassidy, 69 Bloor Street East, Toronto, Ont.:

Dear Doctor.—The next meeting of the City Council will be held on the 24th instant. I am not sure the by-law will pass, but do not know of any strong opposition to it. Thanking you for your kind reference to our action in this matter, I am, Yours very truly,

W. F. LANGRILL,

M. H. O.

At its regular meeting, held November 24th, '02, the City Council of Hamilton, among other business transacted, passed By-law No. 226, respecting the Public Health By-law, a copy of which is herewith submitted:

BY-LAW NO. 226.

Respecting the Public Health By-law.

Whereas it is expedient to amend the Public Health By-law so far as the same is in force in this municipality, and By-law No. 46 of this municipality respecting the Public Health, by making further provisions relative to reports of medical practitioners to the Medical Health Officer;

Therefore the Council of the Corporation of the City of Hamilton enacts as follows:

1. Rule 1 of section 29 of By-law No. 46 of the Revised By-laws of this city is amended by adding at the end of said rule the words, "and every medical practitioner practising within this municipality shall report to the Medical Health Officer upon one of such forms, every case of diphtheria, smallpox, scarlet fever, cholera, typhoid fever, measles or other disease dangerous to the public health which he is called upon to visit in the City of Hamilton, such report to be made within twenty-four hours after he knows that his patient has such disease, and shall also report to the Medical Health Officer the death or recovery of his patient from any such disease, within twenty-four hours after such death or recovery.

2. Rule 1 of said section 29 is also amended by adding thereto the following sub-clause:

(a) Every medical practitioner practising within this municipality shall report to the Medical Health Officer upon one of the forms provided by him for the purpose every case of pulmonary tuberculosis which he attends or is called upon to visit in the City of Hamilton, such report to be made within one week after he knows that his patient has such disease, and shall also, if the patient dies from such disease, report the death to the Medical Health Officer within twenty-four hours after it takes place.

Passed this 24th day of November, A. D. 1902.

T. BEASLEY, City Clerk. JOHN S. HENDRIE, Mayor.

A copy of Dr. Langrill's letter forwarding the same is herewith submitted:

Hamilton, Ont., November 25, 1902.

P. H. Bryce, Esq., M. D., Secretary Provincial Board of Health, Toronto:

Dear Sir,—Enclosed find copy of by-law respecting compulsory notification of pulmonary tuberculosis. Yours truly,

W. F. LANGRILL,
Medical Health Officer.

Your Committee desire to express satisfaction at the action taken by the Hamilton Council in this matter, and their warm appreciation of the efforts of the Local Board of Health of Hamilton and the Medical Health Officer, Dr. Langrill, to secure the passage of this by-law. We hope that,

stimulated by so good an example, other Local Boards of Health and Medical Health Officers in Ontario will urge upon their respective councils a course of action in respect to the notification of tuberculosis similar to that which has just been adopted in Hamilton.

All of which is respectfully submitted.

J. J. CASSIDY,
WM. OLDRIGHT.
P. H. BRYCE.

REPORT OF THE DELEGATE TO THE MEETING OF THE CANADIAN ASSOCIATION FOR THE PREVENTION OF CONSUMPTION AND OTHER FORMS OF TUBERCULOSIS.

September 10, 1902.

To the Members of the Provincial Board of Health:

Gentlemen.—As one of your delegates, appointed at our last quarterly meeting, to attend the annual convention of the Canadian Association for the Prevention of Tuberculosis, held at Ottawa, April 17 and 18, I beg to report as follows:

By the courtesy of Dr. MacCabe, the sessions of the convention were held in the Normal School building, Elgin street. The officers were:—Honorary President, His Excellency the Right Hon. the Earl of Minto, G. C. M. G., Governor-General; President, Sir James A. Grant, M. D., K. C. M. G.; Hon. Secretary, Mr. H. B. Small, M. D.; Hon. Treasurer, Mr. J. M. Courtney, C. M. G..

At the first session, April 17th, at 3 p. m., the address of the President, Sir James A. Grant, was delivered. The President reviewed the researches which had been carried on in connection with tuberculosis, and the general public interest which is being aroused on the question. He said:—"A question before us, and one which will, doubtless, be carefully considered in the ethnology of tuberculosis is, 'Is the tubercle bacillus the chief factor in its production? It is a known fact that individuals are immuned to certain doses of the tubercle bacillus, and does the present stage of our knowledge warrant us in requiring the absolute isolation of phthisical patients? What we do require is better accommodation for the treatment of the poor, less of the sweating in manufactories, increased vital capacity of air in underground and overground compartments, where operatives are almost huddled together. In addition, the result of excessive strain of brain and general nerve tissue in our present system of education, the food problem, and scrap diet in school or college life, the excessive use of alcohol, and defective sanitary arrangements, all of which, misdirected, have an undoubted tendency to lower the vital powers of the system, and become potent factors towards the development of tuberculosis."

On motion of Hon. Sydney Fisher, Sir James Grant was elected Chairman of the Association for the current meeting.

Committees, four in number, were appointed to consider and report upon the following and other matters:

Committee No. One.

The permanent organization of and constitution for the Canadian Association.

Committee No. Two.

(1) The relation of governments and municipal bodies to the crusade for the prevention of tuberculosis;

(2) Legislation:

(3) Notification by physicians of the presence of the disease;
(4 Inspection of schools and examination of children;
(5) Inspection or warnings against dangerous meat, milk, etc.

Committee No. Three.

(1) The availability of general hospitals, sanatoria, seaside and other resorts;
(2) The care of public conveyances (steamships, railway carriages, street cars, etc.), to prevent the spread of the disease.

Committee No. Four.

The collection and publication of useful information for the education of the people twards securing their co-operation with the medical profession.

Committee No. Five.

Resolutions.

Arrangements were made that these committees should meet in different rooms in the Normal School building, transact their business, and report to the convention on the following day.

At the second session, April 17th, 8 p. m.,

His Excellency the Governor-General of Canada in the chair, a number of the people of Ottawa were present, so that the hall was comfortably filled. His Excellency, who is Honorary President of the Association, addressed the meeting, and was very heartily applauded. He alluded to the fact that the Association was meeting for the first time as an organized body, and hoped that at each succeeding anniversary the President would be able to lay before them not only a greater knowledge of the mysteries of the fell disease they were combating, but increasing proofs from year to year that its ravages were at last giving way before that knowledge of treatment and precautions which we owe to scientific research and discovery. There was no greater leader in that research than Dr. Knopf, who was the guest of the Association, and who, in the midst of all the calls of a busy life, had generously found time to come to Ottawa and lay before them the invaluable conclusions he has drawn from the studies, which have already earned him a world-wide reputation. In conclusion, His Excellency said:—"The history of the disease is full of interest. Dr. Knopf, in his celebrated prize essay, quotes Hippocrates, who lived between 460 and 377 B. C., as well acquainted with its deadly results, and traces its rate of misery through the middle ages to the present day. And since the days of Hippocrates it has never left the people, and is still with us, the most fatal of all diseases—killing the health of the young, and the athletic, and the beautiful. Ladies and gentlemen, an Association must provide the armor with which we may successfully encounter this dread foe."

Dr. S. A. Knopf, of New York, was then introduced by His Excellency, and delivered an address entitled, "The Mission of the Societies for the Prevention of Consumption in the Anti-tuberculosis Crusade." Dr. Knopf is a polished and agreeable speaker, and was heard with great interest. His address was lengthy, and dealt with matters of importance. As it has been published in full by the Association before whom it was delivered, I herewith submit it as part of this report.

A general discussion followed, in which the views expounded by Dr. Knopf were endorsed, and he was cordially thanked for his interesting address

April 18, 10 a. m., the session was allocated to the various committees to discuss and frame reports or resolutions, to be presented at the afternoon and evening sessions of the convention. Your delegate was nominated a member of Committee No. Four, which was appointed to report on the collection and publication of useful information for the education of the people towards securing their co-operation with the medical profession. The chairman of this committee was W. C. Edwards, M. P.; the secretary, Dr. Eby.

At the fourth session, April 18, 2.30 p. m., the various committees reported. The report of each committee was taken up clause by clause, discussed and dealt with. After the reports of the committees had been received, it was decided, on motion, that as the subject matter of some of the reports of committees touched somewhat on that of the reports of the other committees, the Executive Committee of the Association would, prior to publication, be empowered to prune the reports, so as to overcome tautology or reduplication in the matters reported on.

The reports of the committees, as adopted by the Association, are herewith submitted.

The officers elected for 1902-3 are:

Honorary President—His Excellency the Earl of Minto.

Honorary Vice-Presidents—Sir Wilfrid Laurier, Lord Strathcona and the Lieutenant-Governors of the Provinces, the Northwest Territories, and the Yukon.

President—Mr. W. C. Edwards, M. D., Rockland, Ont.

Vice-Presidents—None at present.

Honorary Treasurer—Mr. J. M. Courtney, C. M. G., Deputy Minister of Finance, Ottawa.

Honorary Secretary—Dr. H. Beaumont-Small, Ottawa.

Executive Council—Appointed by His Excellency the Governor-General—Hon. Sydney Fisher, Minister of Agriculture, Ottawa; Hon. Wm. Templeman, Victoria, B. C.; Mr. R. L. Borden, M. P., Halifax, N. S.; Dr. T. G. Roddick, M. P., Montreal; Mr. C. B. Powell, M. P. P., Ottawa; Dr. F. Montizambert, Director of Public Health, Ottawa; Prof. Robertson, Commissioner of Agriculture and Dairying, Ottawa; Dr. R. W. Powell, Ottawa; Mr. Geo. H. Perley, Ottawa. Elected by the Association—Sir Wm. Hingston, M. D., K. C. M. G., Montreal; Sir James A. Grant, M. D., K. C. M. G., Ottawa; Mayor Beck, London, Ont.; Dr. E. P. Lachapelle, President of the Provincial Board of Health, Montreal, P. Q.; Dr. P. H. Bryce, Secretary of the Provincial Board of Health, Toronto, Ont.; Dr. Fagan, Secretary Provincial Board of Health, Victoria, B.C.; Dr. E. J. Barrick, Toronto; Dr. McNeill, Charlottetown, P. E. I.; Dr. A. J. Richer, Montreal; Dr. G. Bell, Winnipeg.

A vote of thanks to the retiring President, Sir Jas. A. Grant, was suitably acknowledged.

A vote of thanks to Dr. McCabe and the Government of Ontario for their courtesy in granting the use of the Normal School building for the purposes of the convention was passed.

It was decided that a report of the proceedings of the convention would be published. Also that Dr. Knopf's address and a memoir, entitled, "Tuberculosis, a Social and Medical Disease," by Arthur J. Richer, M. D., should be published and distributed by the Canadian Association for the Prevention of Tuberculosis.

It was also decided that the head office of the Association should be at Ottawa.

The convention then adjourned.

All of which is respectfully submitted.

J. J. CASSIDY.

REPORT ON THE MEETING OF THE AMERICAN CONGRESS OF TUBERCULOSIS, HELD NEW YORK, JUNE, 1902.

Toronto,: September 11th, 1902.

To the Chairman and Members of the Provincial Board of Health:

Gentlemen,—Your delegate proceeded to New York in time for the opening of the Congress, which took place on Monday morning, with the object of allowing members to leave in time for the meetings of other societies. The sessions lasted for three days, 2nd to 4th June inclusive, and were held at the Hotel Majestic. Addresses of welcome were made by Clark Bell, M. D., and A. W. Bell, M. D., Secretary and President respectively of the Congress, and replies were made by the representatives of States and nationalities.

The discussions ranged themselves, with certain digressions, on three groups. The first embraced the social, municipal and state aspects of tuberculosis, including preventive legislation, and the aid to be expected from the various sources in the cure and prevention of tuberculous diseases. Nearly all were in favor of compulsory notification, the minority urging that this course might prevent some afflicted ones from seeking medical aid. It was pointed out that there would be less panic and disturbance of social and business relations from certain knowledge and care than from an uncertain danger being left to take care of itself. At the same time the necessity of avoiding needless alarm in the public mind, and in the attitude of people towards those affected by tuberculosis, was dwelt upon. The various means for educating the public to act in concert with sanitary authorities were also considered. These are familiar to you, and need not be taken up here.

The second symposium dwelt with the treatment of cases, both individually and collectively, as in sanatoria. Much interest was taken in the Stratton Act for facilitating the establishment of these, as also in the work at present going on in Muskoka and elsewhere. Three States of the Union were reported as having taken the further step of establishing State sanatoria for the treatment of tuberculosis.

On the third day the attention of the Congress was taken up largely with the question of the intercommunicability of bovine and human tuberculosis. Dr. J. J. Kinyoun and others adduced evidence of cases of tuberculosis in children being caused by milk and other animal products. A very important contribution was that of Dr. Salmon, head of the Bureau of Animal Industries at Washington, who, in common with all prominent men who took part in the discussion, thought that the opinions of Prof. Koch, last year, were premature, and not substantiated; and that we ought not to relax anything of our vigilance in regard to animal tuberculosis.

A pleasing episode of this Congress was the passing of a resolution congratulating our King and the British nation upon the conclusion of the Boer war, for which resolution the thanks of the Canadians were briefly returned.

An interesting feature of the meeting was the "Museum" and exhibit of the American Congress of Tuberculosis, containing plates, pathological specimens, models, materia and armamentaria medica. An illustrated catalogue of the museum of some 42 pages is presented herewith.

To a large number of the delegates it was a matter of surprise and regret that many of the foremost practitioners were absent from the meeting of the Congress, and it transpired that some men who were guilty of unprofessional conduct, in advertising and other similar practices, were using and contaminating the Congress to serve their own ends.

A pamphlet by one of these men is submitted with this report. You will find that it contains such phrases as this:—"Still the cry of the medical profession is not only there is no cure, but 'there shall be no cure' (of tuber-

culosis)." It then proceeds to give a number of testimonials to the skill of the author and the efficacy of his "germicidal treatment" and "outfit and the prices thereof." It is backed up by a coat of arms on the cover, a dove with an olive branch on a scroll, surmounting a black shield, on which are two horns rampant supporting a dagger, pointing upwards towards the dove. At the lowest depth of the shield appears the name of the author, and beneath all the motto, "In fide et a bello fortis." We fear the fides is not bona fides, and you will find the bellum coming in later.

This pamphlet was the basis of a resolution passed by the Congress, to the effect that the author resign his membership, or that his communication be rejected by the Committee on Publications. Against the mover of this resolution, Dr. Paschal, of San Antonio, Texas, an action for libel was instituted, on what grounds it is hard to imagine. The name of the wonderful scientist concerned is omitted from this report, as it is not necessary to give him any greater notoriety, such as he would desire, by being mentioned in our records.

The condition of affairs described here called for a reorganization and rehabilitation, which was effected by the election of the following gentlemen as officers of the Society:

Honorary President—Dr. Henry D. Holton, Brattleboro, Vt.
President—Dr. Daniel Lewis, New York, N. Y.
First Vice-President—Dr. J. A. Egan, Illinois.
Second Vice-President—Dr. Frank Paschal, San Antonio, Texas.
Third Vice-President—Dr. E. J. Barrick, Toronto, Canada.
Fourth Vice-President—Dr. I. A. Watson, Concord, N. H.
Fifth Vice-President—Dr. Romola, Guatemala.
Secretary—Dr. George Brown, Atlanta, Ga.
Treasurer—Dr. P. H. Bryce, Toronto, Canada.

The suggestion to hold a World's Congress of Tuberculosis in St. Louis in 1904 met with approval, and steps are being taken to advertise this fact and secure the aid of medical journals, societies, physicians, and scientists in making this movement a grand success.

Your delegate expressed regret, which he still feels, at the absence from one of the active positions of Clark Bell LL. D., who has done so much to originate the Association; but it was thought by the movers in the reorganization that a complete change was necessary to restore the professional prestige of the Association.

Dr. Brown the new Secretary, has written to Dr. Barrick, Dr. Bryce, the writer, and others, asking that we at once put in operation all means possible to make this World's Congress a success in advancing the interests of mankind. It is suggested that the Board should take the matter up with this end in view, by the appointment of a committee, and such other procedure as to you may seem fit.

All which is respectfully submitted.

WM. OLDRIGHT.

REPORT OF THE COMMITTEE ON EPIDEMICS ON HYGIENIC RULES FOR BARBERS AND HAIR-DRESSERS.

To the Chairman and Members of the Provincial Board of Health:

Gentlemen,—In view of the fact that some common contagious diseases, as well as certain diseases of the skin and scalp, are sometimes propagated by the instruments and hands of barbers and hair-dressers, and that the well-recognized laws of hygiene should extend to the barber business,

your Committee on Epidemics, having considered the matter, desires to report as follows:

In providing for the introduction of modern hygienic rules into the barber business, two principal methods may be advised.

The first would be by legal enactment (Provincial), obliging all the master barbers in Ontario to pass an examination before a properly qualified Board, to obtain a license, and to subscribe to the hygienic regulations published or to be published by this Board, which relate to the business of barbering. A flagrant violation of these regulations would entail a revocation of license. Provincial inspectors would probably be required to see to the enforcement of these regulations.

A second method would be:—To have no formal legal enactment put in force in this Province, but for this Board to issue, from time to time, circulars addressed to the barbers, showing them what is expected of them in the matter of hygiene, and also informing them of the most sanitary methods of carrying on the barbers' trade.

In reference to the first mentioned method, it may be said that Michigan has, perhaps, the best legislation on this subject, and it has been found productive of much good. In that State barbers must be examined before a board of experts, and receive a license before they can ply their trade. The applicant must answer such questions as "What kind of a lather brush do you use?" "What do you use for washing lather from your customer's face?" "How do you apply powder to his face?" etc.

Barbers are also required to explain how they keep their razors, how they clean shears, combs and brushes, how they stop the flow of blood from cuts, and what are good sample remedies for eruptions and skin diseases caused by close shaving. The Michigan law requires, also, that a barber shall be a citizen of the United States. He must tell how long he has been a barber, and how he acquired his training; whether under a regular barber or "just picked it up."

A State Barbers' Association is in operation in Delaware. It requires all barbers doing business in that State to register. All barbers who have not been in the business for two years are obliged, if desirous of working at the trade, to pass an examination, and, if they pass, certificates are given. Those who fail to pass have to rank as apprentices until they are able to qualify.

Boston, Mass., has issued a short set of regulations for barber shops, applying to that city. It has been adopted by the Boston City Health Department, and places the barbers of that city under the control of the Civic Health Department in matters of hygiene. They quote:

Regulation for Barber Shops.

The place of business, with all the furniture, shall be kept, at all times, in a cleanly condition. Mugs, shaving brushes, and razors shall be sterilized by immersion in boiling water, after every separate use thereof.

A separate, clean towel shall be used for each person. Alum or other material used to stop the flow of blood shall be so used only in powdered form, and applied on a towel. The use of powder puffs is prohibited.

The use of sponges is prohibited.

Every barber shop shall be provided with running hot and cold water.

No person shall be allowed to use any barber shop as a dormitory.

Every barber shall cleanse his hands thoroughly immediately after serving each customer.

Attest, C. E. DAVIS, Jr.,
Secretary.

Writing of the effect produced by these regulations in Boston, Dr. S. H. Durgin, Chairman of the Health Department, Boston, says: "We have gained great headway by these regulations, which have already closed up a large percentage of the shops."

In other States, viz., Indiana, Pennsylvania, California, no special laws have been passed, regulating the hygiene of the barbers' trade; but circulars have been issued by the Boards of Health of these States giving sanitary advice to barbers and hair-dressers, and calling the attention of the public to the conditions in the exercise of the barbers' trade, which are liable to produce disease.

The Provincial Board of Health of the Province of Quebec has issued a circular containing a set of regulations for barbers, which has been imitated by the State Board of Health of Indiana, and possibly by others. It has been favorably noticed, recently, in La Presse Medicale, Paris.

Having read the circular published by the Provincial Board of Health of Quebec, your committee desires to express its approval of the same, and will avail itself of these precepts in framing its own system of rules.

Regulations for Barbers.

1. A barber should be clean and neat in his person and dress; should use the bath regularly, and be particular in maintaining a healthful condition of the mouth and hands.

2. No person suffering from any disease of the skin, scalp, or hair should act as a barber; nor should anyone suffering from consumption or any disease commonly known as contagious serve in this capacity.

3. If diphtheria, scarlet fever, smallpox, measles, or any other contagious disease should occur in the family of a barber, or among his friends or acquaintances, he should not nurse or visit the patients, nor in any way come in contact with them; and if the disease should appear in his own dwelling or boarding-house, he should temporarily change his residence.

Persons suffering from any disease of the skin, scalp, or hair, or from consumption, or convalescent, that is, persons who have recently recovered, from smallpox, scarlet fever, diphtheria, or other contagious disease, should not visit any barber shop or parlor, but should be attended by the barber at their own homes. All instruments used on such patients should be carefully disinfected after such use.

5. The floor of a barber shop should be made of hardwood, or, if not so made, should be covered with sound oilcloth or other impermeable floor covering. The floor of the shop should be washed frequently with hot water and soap. As a matter of ordinary routine, it should be mopped every morning with a damp woollen cloth. Sweeping is not recommended. If the floor is to be swept, it should first be sprinkled with dampened sawdust or wet tea leaves, and then swept, in order that as little dust as possible may be raised.

6. The shop or parlor should be well aired before the day's work is begun, and it should also be ventilated during the day. It must never be used as a dormitory.

7. Every barber shop should be provided, if possible, with running hot and cold water.

8. The shop should be kept very clean, as should also all of the chairs, razors, clippers, brushes, towels, and all other articles or instruments used in the business. Towels should be carefully washed, and then rinsed to remove the odor of soap.

9. Customers should be encouraged to use, or have used on them, their own instruments (razors, soaps, brushes, etc.), and in the case of persons suf-

fering from diseases of the skin, scalp or hair, this practice should be compulsory. For operations on a dead body, the barber should have instruments used only for that purpose.

Disinfection of Instruments.

Razors and clippers may be disinfected by boiling for five or ten minutes in soapy water, or in water containing a little bicarbonate of sodium or carbonate of potassium. For this purpose they should be laid in an enamelled or galvanized metal dish, completely covered by the water. After boiling they may be cooled in cold water and duly dried.

Steel instruments boiled in solutions of the kinds mentioned above are not liable to rust.

Hair brushes, combs and strops may be disinfected by placing them in a small closet or case, which closes hermetically (is air-tight), in which is kept a saucer constantly filled with a solution of formalin, about one ounce to each cubic foot of space. It is recommended that all instruments be laid on racks or trays in this closet after using. If this is done every customer can have thoroughly disinfected instruments for use in his case. Brushes and combs will need cleaning with bran or clay in hot water at intervals. Shaving brushes may be entirely dispensed with, and a puff of cotton used, which can be destroyed after one using. A shaving brush may be disinfected by being placed in boiling water for five minutes before using. Before passing from one customer to another, the barber or hair-dresser should thoroughly wash his hands. He should use warm water with carbolic soap, or one containing mercuric chloride. The powder puff should be replaced by a powder blower, or by a ball of wadding. The wadding should be thrown away after one using.

A stick of alum should never be used to stop the flow of blood. A small piece of alum after being used on a customer should be thrown away. Some prefer burnt alum, applied on cotton, which can be thrown away after one using.

Sponges should never be used in a barber's work, because they cannot be cleansed as a towel may be. In place of sponges, towels or balls of absorbent cotton should be used.

Toilet wax should not be used indiscriminately ; each person should have his own wax.

The hair-dresser should remove vaseline from the vessel containing it with a spatula or spoon, and not by inserting his possibly contaminated fingers into the vessel.

Only strictly clean linen towels, wrappers, etc., should be used for each customer. If a fresh laundried wrapper cannot be supplied to each customer, a clean towel should be used in place of the wrapper.

Your Committee does not wish to express a positive opinion as to the respective merits of a Provincial or municipal legal enactment, obliging barbers to qualify by examination and obtain a license to carry on their trade, or, on the other hand, a circular requesting barbers and hair-dressers to conform as much as possible to such rules and regulations as this Board may see fit to adopt and publish. In favor of the former plan it may be said, that while some barbers are of themselves disposed to do what is required, others are careless in their methods, and their business would appear to demand careful supervision. A system of licenses, based on a Provincial law, with the probability of the revocation of a license for infraction of the regulations established by this Board would certainly tend to promote the observance of these regulations.

On the other hand, it would be quite satisfactory if the barbers of Ontario were to form a Provincial Association among themselves, similar to the association of that name which has been established in the Province of Quebec. Such an association once established could easily be placed in touch with this Board, and be induced to adopt such hygienic regulations as this Board would think proper to prescribe. As the initial step would then be made by the barbers themselves, it would probably be more successful in securing the adoption of hygienic measures by the barbers, than the passing of a law regulating the barber business made at the request of this Board.

All of which is respectfully submitted.

J. J. CASSIDY.
P. H. BRYCE.
W. H. OLDRIGHT.

REPORT OF INVESTIGATIONS INTO OUTBREAKS OF DISEASE.

By C. A. Hodgetts, M.D., Medical Inspector Provincial Board of Health.

Toronto, Feb. 11th, 1903.

Gentlemen: During the quarter ending December 31st, 1902, I have investigated two outbreaks of enteric fever, viz., those at Niagara Falls and at Enniskillen, a village in the Township of Cartwright; an outbreak of scarlet fever in the Town of Peterboro'; an outbreak of impetigo and scabies in the Albert College, Belleville. Besides visiting 22 municipalities for either purposes of diagnosing smallpox or assisting the Local Boards of Health to put in operation the provisions of the Health Act in so far as it relates to this disease.

As scarlet of a severe type is now prevalent, I might refer to the difficulties experienced in the Town of Peterboro', where the disease evidently began with very mild cases. Even the medical men were in doubt, for on August 6th, 1902, a death was registered of a child, aged 10 years, the cause being given as "supposed scarlet fever."

It was not, however, until December 6th, three months later, that the first death was reported as being due to scarlet fever, and in rapid succession 14 others were reported—one child, aged 5 1-2 years, being ill only 36 hours. With public funerals being permitted, it can well be understood how the disease spread; additional dangers were laxity in quarantine, and the permitting of cases to remain in their own houses, instead of an early removal to a hospital, with efficient disinfection of the premises by the local authorities, instead of leaving it to the medical attendant.

In regard to the outbreak of impetigo and scabies at Albert College, it was found that the diseases had been brought to the institution by two of the male pupils, and spread to both resident and day scholars, chiefly, I believe, by the use of a common towel in the lavatory. The affected pupils were sent to the hospital, the school closed, and every effort taken by the authorities of the college to place the institution in a sanitary condition.

The cases of enteric fever reported at Niagara Falls were found to have occurred in persons working on the American side, all of whom used the water of the American town; and further, it was found that there had been a large number of cases of the disease on that side of the Boundary, owing chiefly, I believe, to the impure water supplied to the town by both systems of waterworks. I collected samples of water on both sides of the river, and they were subsequently examined by Dr. Amyot, with the result that the specimens taken on the American side showed the presence of bacc. coli. com.

The cases of enteric fever which happened in the Village of Enniskillen were no doubt due to pollution of the water supply in each instance. Reports have already been handed in on both of these outbreaks.

Smallpox has been reported from 42 centres during the month of January, viz.: 4 cities, 12 towns and villages, and 26 townships, a total of 42 municipalities.

There have been 196 cases, with 10 deaths, the latter occurring in the following places: Galt, 5; Preston, 2; Jocelyn Township, 2; Toronto, 1.

In eight cases the origin of infection has been found to be outside the Province, 5 being traced to the State of Michigan, and one each to New York City, Minnesota, and Dakota, while six of the municipalities trace the infection to the Galt cases, at a time previous to the putting on of quarantine in that town.

The chief centre for the month was Galt, which reported 65 cases, with 5 deaths. Here, as in many other places in the Province, the first cases were thought to be chickenpox, and there had been a large number of exposures before the true character of the infection was recognized. A notable feature of this outbreak is the severity of type, fully one-half of the cases being either confluent or semi-confluent, and the first patient who died suffered from the haemorrhagic form.

I saw 30 of the Galt cases, and, as showing the effects of vaccination upon the disease, found that none of these persons at the time of their exposure had either been vaccinated or revaccinated within seven years; some 8 had been vaccinated after exposure:

17 never vaccinated.
4 vaccinated in infancy; ages, 36, 38, 46, 54; showing 1 scar each.
1 vaccinated in infancy; no scar evidence.
6 vaccinated 2nd or 3rd day after exposure.
1 vaccinated 3rd day.
1 vaccinated 3rd day; unsuccessful.

The 17 vaccinated were classed as follows: 3 confluent, 5 semi-confluent, 9 discrete.

The 4 vaccinated 30 to 40 years ago with only one scar: 1 confluent, 2 semi-confluent, 1 discrete.

The 6 vaccinated after exposure, and on whom there was a more or less satisfactory evidence of the reaction of the vaccinia: 3 semi-confluent, 3 discrete.

The 1 showing no reaction of vaccinia had the disease in the confluent form.

It was particularly noticeable in regard to the six persons vaccinated after exposure that desquamation was hastened, and the rash was very scanty upon the extremities.

The five persons who died were all unvaccinated.

As showing the immunity conferred by even one successful vaccination, I would quote briefly the following examples which have come under my notice during the past month:

At Galt, Mrs. H., aet. 32; vaccinated 17 years ago, as evidenced by two good scars, was the only one of four in a house who did not contract the disease.

At Galt, Mr. L., aet. 57 ; vaccinated in childhood ; 2 scars ; the only one of four.

At Galt, Mr. K., aet. 43 ; vaccinated in childhood ; 1 scar ; the only one of 9 to escape the disease.

At Wilmot Township, Mrs. S., aet. 45 ; vaccinated 43 years ago ; 1 scar ; was the only one of a household of 9 who was unaffected.

There are two regrettable facts incident to the present outbreak of smallpox.

The first is the persistent manner in which medical men generally continue to diagnose the disease as chickenpox, and thus large numbers of persons become exposed to a disease which otherwise they would avoid.

The second fact, and one for which many of our towns are paying dearly, is the general neglect of vaccination, both primary and secondary, and the great difficulty experienced by the Local Boards of Health in the enforcement of what should be a readily accepted operation.

At first it would seem somewhat difficult to account for these unfortunate conditions; but experience teaches that the medical practitioner often, and the Medical Health Officer in most instances, is unwilling to bear the onus of responsibility of pronouncing upon many of the mild cases which occur in the initial stages of an outbreak, and which present few, if any, of the symptoms so usual, with what is generally taught, as typical smallpox. To do so is to antagonize a portion of the community, and bring himself into opposition with many who are just waiting an opportunity ; if he is M.H.O. he is assuming a responsibility both for himself and the municipality, so both give the patient "the benefit of the doubt," a doubt too often born of ignorance and inexperience as regards smallpox and its differential diagnosis. Thus it is that the municipality suffers, and no local physician or Medical Health Officer assumes responsibility; as a consequence matters progress, and ultimately this Board is appealed to, its officer is expected by the local authorities and the medical men to assume all responsibility for errors in diagnosis, while they assume the role of injured innocence, or, worse still, of covert opposition.

If it is considered for a moment what the average township and village pays a M.H.O. for his services, and at the same time what they expect from him, even for extra services during an outbreak of any infectious disease, not to speak of the many calls made upon him from week to week, it cannot be wondered at that he should hesitate to assume such a responsible role as just referred to.

What, then, is the practical solution of this difficulty which is increasing instead of decreasing ? There must be some union of municipalities -a union which can offer sufficient compensation to an officer who shall devote his whole time to the duties of the office, in the same manner that some of the cities of the Province now engage their M.H.O.; and for this purpose the several municipalities of a county or portion of a county may be united. With the increased remuneration must come that very essential requirement on the part of the M.H.O.—a standard of qualification, and this Board should in the public interest institute some system whereby the necessary information and instruction can be secured, and the Province thus be supplied with trained Medical Officers of Health.

The failure on the part of the M.H.O. to do anything more than merely fill the position from year to year has in a large measure resulted in the general public ignoring even the wise provisions of the Vaccination Act. Hence it is found that in many of the rural districts infant vaccination is seldom if ever resorted to, and only in times of outbreaks have the public availed themselves of this protective measure.

Report of Smallpox Cases for the Month of January, 1903.

Cities (4).

Brantford	5	Windsor	1
St. Thomas	10		
Toronto (1 death)	4		20

Towns and Villages (12).

Amherstburg	3	Pembroke	2
Burlington	1	Petrolea	1
Deseronto	1	Preston (2 deaths)	4
Drumbo	1	Sault Ste. Marie	1
Galt (5 deaths)	65	Vankleek Hill	1
Hawkesbury	8		
Midland	1		89

Townships (26).

Anderdon	3	McNab	1
Bayham	1	Medonte	1
Beverley	2	Moore	10
Blenheim	2	Portland	1
Cambridge	3	Plantagenet, S.	2
Camden	1	Rawdon	1
Dumfries, N.	1	Stamford	3
Eldon	1	Tay	9
Emo	4	Thurlow	2
Finch	1	Tiny	9
Hawkesbury, West	1	Indian Reserve (Deseronto)	13
Himsworth, N.	1		
Hinchinbrook	4		87
Jocelyn (2 deaths)	9		
Levant	1		196

Report of Smallpox Cases for the Quarter Ending Dec. 31st, 1902.

Cities (3).

Ottawa	4	Windsor	2
Toronto	8		
			16

Towns and Villages (8).

Copper Cliff	1	Streetsville	1
Deseronto	1	Thamesville	1
Pembroke	10	Waterloo	1
Rockland	2		
Sparta	1		18

Townships (25).

Alice	37	Plantagenet, South	17
Anderdon	2	Puslinch	1
Bayham	2	Sheffield	1
Caledonia	3	Stamford	1
Caradoc	6	Tecumseh	1
Dorchester	13	Torbolton	12
Fitzroy	7	Toronto	9
Jocelyn	1	Wainfleet	3
Metcalfe	2	Westmeath	1
Muloch	1	Widdifield	4
Norman	1	Wylie	2
Orillia, South	1		
Oxford, North	1		132
Oxford, West	3		

Camps (1).

Collins	1		
	1		167

REPORT ON ENTERIC FEVER AT NIAGARA FALLS.

By C. A. Hodgetts, M.D., Medical Inspector.

Nov. 11th, 1902.

Dr. P. H. Bryce, Secretary Provincial Board of Health :

Dear Sir,—A report having been received that there had been a number of cases of Enteric Fever in the Town of Niagara Falls, I proceeded there under instruction on October 8th ult.

From personal interviews with the medical practitioners, I learned that there had been a few cases during the past few months, many of a mild type, and most of these were supposed to have contracted the disease on the American side of the river. On the whole, the outbreak had been nothing like that of the previous year. At the date of my visit there were only three cases of fever, all in the practice of Dr. Killem. One contracted the disease on the American side, where he worked ; the other two were residents of the town.

In company with Dr. McGarry, Jr., I visited the pumping station of the town water supply, where I found that the water was more turbid than usual, owing to the construction works now in progress further up the river, and the cofferdam enabled me to inspect the river bed above the intake, where I found a private sewer was being extended out into deep water by a series of iron pipes, whereby there would be direct contamination of the town's water supply.

I also found that the closets on the river's edge were kept in a very unsatisfactory condition.

On the Canadian side I took three samples (C. I., C. II., C. III.), as follows :

C I. Power-house well: temperature, 60° F.

C II. Intake: temperature, 57.5° F.

C III. Town tap: temperature, 61° F.

Proceeding to the American side, I found that the city receives its water supply from two sources : the city waterworks and the Power Company, the latter being the new source of supply for the upper portion of the city, and takes the water direct from the river, whilst the former takes the water from the old canal, the power-house being close to the Falls. Three samples were taken on that side of the river (U.S. I., U.S. II., U.S. III.), as follows:

U.S. I. Tap at pumping station, city waterworks: temperature, 60° F.

U.S. II. A fountain near power-house: temperature, 50° F.

U.S. III. Town tap (after water had been aerated and filtered, as supplied to consumer): temperature, 60° F.

I have much pleasure in appending Dr. John Amyot's Report on the examination of the six specimens, from which will be seen the general difference between the Canadian and American waters ; the pollution by the Buffalo sewage of the American waters being quite evident.

Respectfully submitted.

CHAS. A. HODGETTS, M.D.,
Inspector.

Received from Dr. Hodgetts personally, 6 bottles of water, in ice.

Recd..... Oct. 11, 1902.
Collected. " 10, 1902.
Analysis . " 10, 1902.

Test Numbers.	Designation.	Turbidity.	Color.	Odor.	No. of bacteria per 166.	Colon bacillia.	Chlorine.
2,934	"C I."	None.	None.	None.	350	None.	10
2,935	"C II."	None.	None.	None.	580	None.	10
2,936	"C 3"	None.	None.	None.	210	None.	9
2,937	"U.S.I."	None.	None.	None.	10,000	Present 200	10
2,938	"U.S.II."	None.	None.	None.	90,000	None.	11
2,939	"U.S.III.'	None.	None.	None.	2,000	Present 128	10

JOHN A. AMYOT.

REPORT ON ENTERIC FEVER IN THE VILLAGE OF BURK'S FALLS.

By. C. A. Hodgetts, M.D., Medical Inspector.

Dr. P. H. Bryce, Esq., Secretary Provincial Board of Health :

Toronto, October 24, 1902.

Dear Sir.—The appearance of several cases of enteric fever in the village, which has a population of about 600, caused the local physicians and the Local Board of Health to transmit to the laboratory several samples of drinking water obtained from various wells of the village, upon which the inhabitants depend for their supply.

The village is situated on the south bank of the Magnetawan River, from which it rises rather precipitously, the highest point being on the line of High street, and about 350 yards distant.

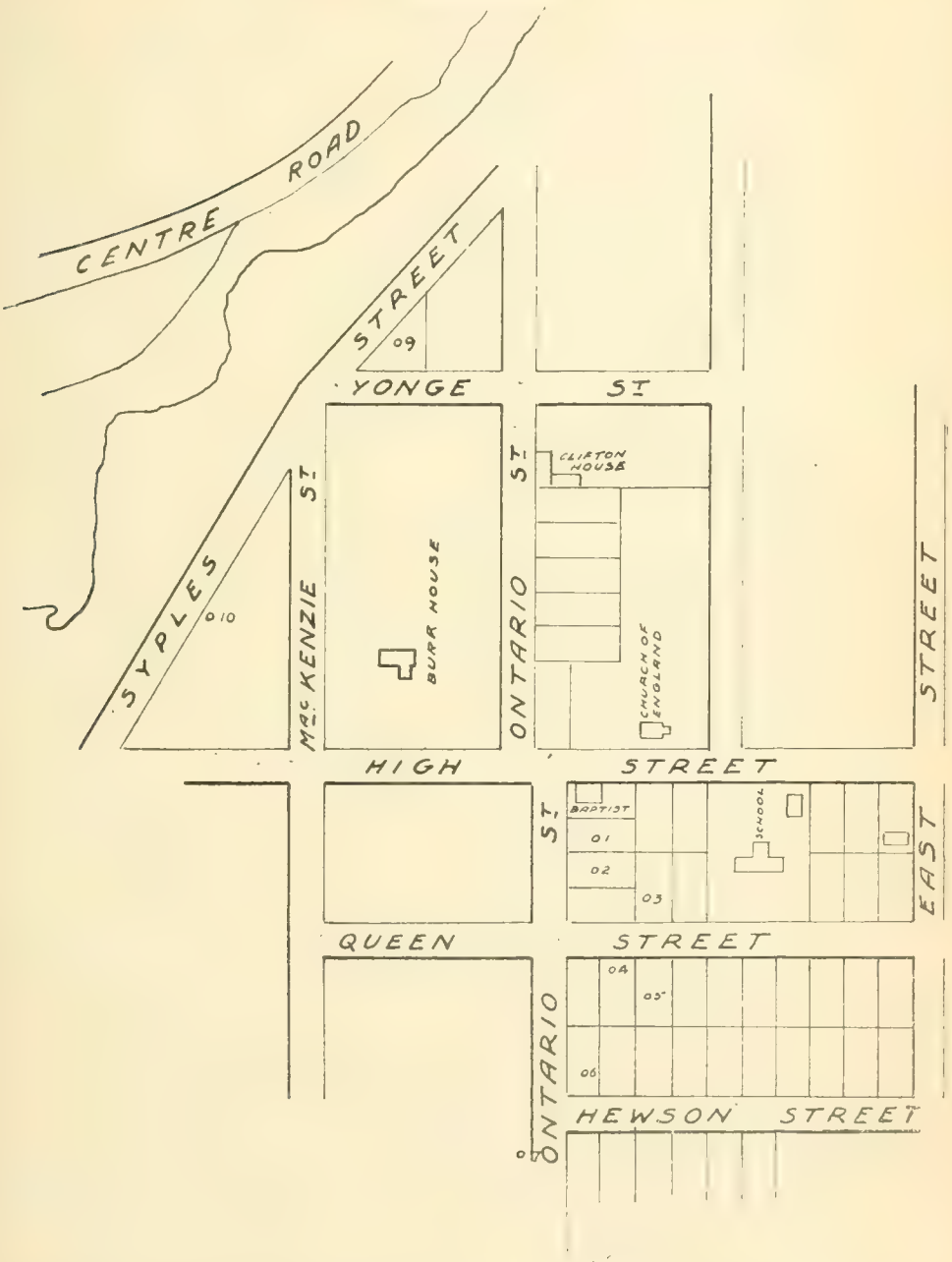
From this ridge the land slopes in a southerly direction towards Hewson and Ontario streets, and in this lower ground are found the wells which chiefly supply the villagers with water.

On this sloping land, and within the area of two blocks, bounded by High, Ontario, Hewson and East streets, there reside nearly 150 people. There are in the district 32 cesspools, or closets, at least 3 pig-pens and the same number of cow sheds, while there are only six wells, one of which, No. 4, may be called "the town pump," as there are householders who contribute yearly for its being kept in repair, and from it the school on Queen street is supplied.

I cannot pass on further to consider the outbreak without first referring to the cesspools. That such an accumulation of filthy pits should be permitted either by the individual owners or the village Board of Health seems almost inexcusable—one, in the cellar of a house in which fever existed, was nearly full to the top of the seat—many others were equally as bad, and the odor was unbearable. In all of these cases the surface of the ground around

was saturated with the overflow. In two instances the pig pens abutted on these closets, and in one the atmosphere was reeking with the stench emanating from

Burk's Falls.



the excreta of cow, pig and man—the quadrupeds were to be pitied, while the ignorant man was deserving of condemnation and punishment. If the

example were an isolated one we might pass the subject by, but experience teaches me that it is but a specimen of what exists in many of our larger towns, and often, I am ashamed to say, cities of this Province. Below, and encircled by these 32 pits, are to be found the wells numbered 1 to 6 inclusive, none of them 20 feet deep; Nos. 2 and 3 each being situated in the cellars of the house.

The ridge is gravelly, and a description of the various strata cut through in digging No. 3 will be a good indication of the others. They are as follows:—Sandy loam, yellow sand, light sand (firm), hard pan, sand, bottom of hard pan; in this bottom the water flows from the east and north west.

As regards the other four wells situated beyond this area, No. 8 is much further to the south; No. 7 is on the west side of Ontario Street, close to the road, and not far from the edge of the second dip into the lower valley; it was 75 feet deep. Nos. 9 and 10 are some distance from the others, and although a little distance apart, are on the same level; the former is 16 feet deep, with a rock bottom; flows continuously. It evidently is contaminated by surface water, for the doctor states that at times it is tainted with coal oil, apparently washed in from the site of an old oil warehouse, just adjacent. No. 10 was originally a spring; the land around is chiefly made land, largely sawdust. It appears that the drainage from the house adjoining is carried away by wooden pipes, from a point near the outer side of the house to the river, and it is not improbable that there is a leakage therefrom, which would readily find its way into the well through the sawdust.

By reference to table it will be noticed that there were seen 14 cases—9 adults and 5 children—and it was found that all the children drank the water of well No. 4 when at school, and of some or other of the others, and 4 adults drank of water from the same source; two from No. 3; one from No. 8; one from Nos. 6 and 10, and one from Nos. 9 and 10. It was further ascertained that one adult drank during his business hours of No. 4, while the other 7 members of his household drank only from the deep well No. 8, and he was the only one attacked with the fever.

The possibility of the disease being communicated by the milk is very remote, as no two families had from the same source.

The summer had been a very wet one, and as a consequence, the ground became saturated, filtration being impossible at times, and impurities would be washed into the adjoining wells or soak through. As most of the closets were pits, there was every opportunity for this to happen, as each rainstorm would fill them, and before the next the liquid would have drained away into the pits or wells in the lower ground. It was further learned that last year enteric fever had occurred in two houses adjacent to, but on the east side of East Street, and allowing for either the imperfect disinfection of excreta at that time, or what is more probable, the depositing of infected excreta in the pits before the fever was diagnosed, it is not improbable these may have been factors in determining the present outbreak.

Samples from each of the wells were collected by Dr. Partridge, M. H. O., and forwarded to Dr. Amyot for examination.

I would strongly urge the immediate adoption of some system for the removal of "night soil" from the premises, and the cleaning of every cesspool in the village. The wells should all be closed, else a repetition of this year's experience may happen next, only with a more widespread diffusion. At the same time there should be instituted a system of public water supply, which possibly could be obtained on the north bank of the river, and at such an elevation as to give ample force for all purposes.

In conclusion, I beg to thank Dr. Partridge, M. H. O., and Dr. Barber, for the kind assistance rendered me in making the investigation, and for the deep interest taken by them in this important matter.

Chas. A. Hodgetts,

Medical Inspector.

LIST OF CASES.

	Name.	Street.	Patient.		Water supply.	Milk Supply.
			Adult.	Child.		
1	Harris	Ontario	1	0	Well No. 4 & 7	Blakely.
2	Bailey	"	1	0	4	Own cow.
3	Rutter	"	0	1	4	Wilson.
4	Hillier	Queen	2	0	3	Westover.
5	Couture	Ontario	0	1	4	Hall.
6	Pates	"	1	0	6	
7	Blakely	"	0	1	4 & 6	Own cow.
8	Stevenson	Hewson	1	0	6 10	Burk.
9	Stuart	Queen	2	0	4	
10	Ward	"	0	1	4	Own cow.
11	Hillis	East	0	1	4	Baker.
12	McClelland		1	0	9 & 10	
			9	5		

Note.—Since writing this report, I have been informed by Dr. A. W. Partridge, M. H. O., who has taken the greatest interest in the investigation, that a case of enteric fever existed in one of the houses on High Street, no care being taken in disinfection of the dejecta.

The doctor also reports five other cases having occurred since the date of my inspection. C. A. H.

REPORT ON ENTERIC FEVER OUTBREAK IN SAULT STE. MARIE.

By C. A. Hodgetts, M.D., Medical Inspector.

October 17th, 1902.

To P. H. Bryce, M.D., Secretary:

Dear Sir.—Having learned while on official business in Algoma that there was a large number of enteric fever cases in the town, I called on Dr. McCaig, Medical Health Officer, and found that, for at least two months, the disease had been present, and was now (September) somewhat epidemic. Many cases had been of a mild type, but several deaths had occurred, amongst them one of the leading medical men dying.

Owing to there being no system of notification, the M. H. O. was unable to give me the exact number of cases that had occurred, and it was difficult to obtain the information from the medical men, owing to the briefness of my visit, but a conservative estimate would place the number at 120.

On visiting St. Joseph's Hospital, I found there 46 cases, classified as follows:

	Cases.
1. Non-residents	11
2. Residents—	
(a) West of Bruce street	24
(b) East of Bruce street	11
	—35
	46

In addition to the cases seen in the hospital, the homes of 13 other patients were visited, and the premises examined. They were all of the class "Residents," in group "A" and in "B," making in all 59 cases included in the enquiry, eleven of whom were non-residents—one from the State of Michigan, and 10 from the adjacent country, leaving for consideration 48 "Residents." One of these had been acting as ward attendant on the enteric patients in the hospital, and no doubt the disease was communicated to him by want of proper care on his part of antiseptic measures. Of the remaining 47 it was found that the source of their water supply was as follows:

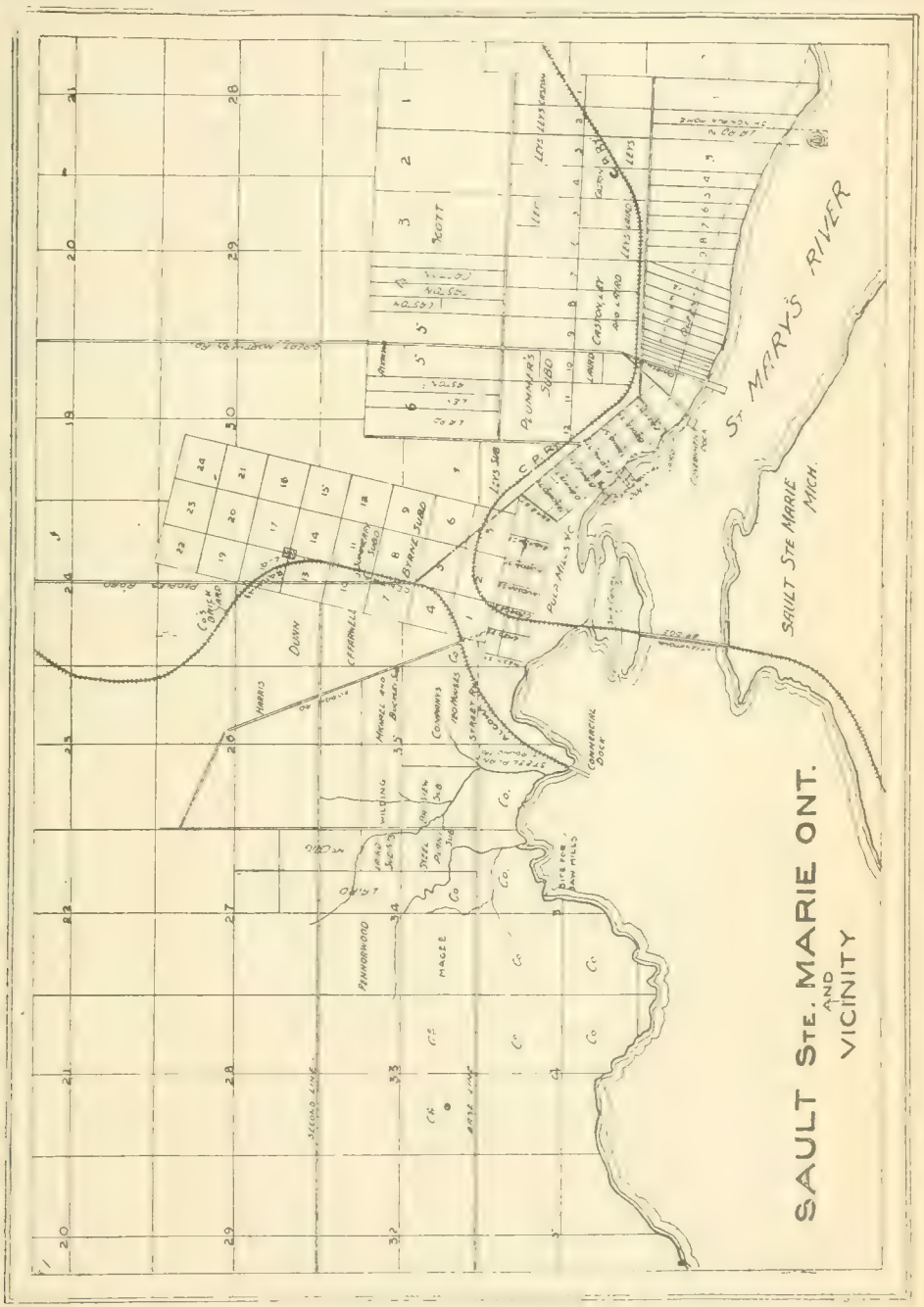
Town water	11
Well or spring water	23
Town and well or spring	12

The supply of milk was so varied, and the information on this point so difficult to ascertain from the hospital cases, who were chiefly from boarding-houses, that I have not taken it into consideration, although it is possible that this might have been a source of contagion—as those supplying milk would derive their water from wells or springs, which would be used to wash the cans and vessels; and there is the further possibility of some of it being used for adulteration.

As the larger number of those attacked drank water from the springs or wells of the town, 76 per cent., attention was directed to an examination of the section west of Bruce street, where the chief source of water supply was other than that supplied by the town, and in which 68.5 per cent. of the "Resident" cases occurred. Here the streets and houses are all new; the character of the soil being layers of either sand or loam on clay or rock; a district which, but a year or two ago, is said to have been the dumping ground for night soil and garbage. The ground itself was found to be soft and boggy, due, no doubt, to the fact that the season had been a wet one. There was every evidence that kitchen and other refuse was thrown out, without any regard to health or decency, and cattle roamed about: in fact, everything pointed to an easy pollution of the springs and wells.

A striking instance of the primitive and careless methods of the residents was seen in the spring on Grosvenor street. The street itself is a new one, with a gutter on either side. About ten feet distant from the gutter on the north side is the spring. The receptacle for the water is a hole in the ground, about 4 feet in diameter, its sides composed of small stones, and walled above the ground for about a foot: and at the time of my visit partially covered with a few boards fastened together. It had apparently been recently cleaned, for some of the slime adhering to the stones had been scraped off, though this might have been done by the scraping of the pails against them. Floating in it were some pieces of bread, possibly thrown there by the children sent to draw water. There was two feet of water, and it was clear and cool, and of agreeable taste. A second and sim-

ilar receptacle lies about eight feet further off. Its condition was dirty, weeds grew in it, and at the bottom lay water-soaked sticks with other rubbish. From either or both of these the water found its way underground



to a barrel situated in the ditch, at the side of the road, out of which the residents also took their water. The ground in the immediate neighborhood was damp, and five closets were within a radius of 25 feet, and cattle roamed about.

The result of my inspection of the premises east of Bruce street is anything but satisfactory, and the condition calls for prompt action on the part of the local authorities. It is an impossibility for the wells to remain uncontaminated so long as cesspools exist in the condition I found them; for while one careful resident with a well keeps his own premises clean, yet his surroundings are such that pollution must come from soakage.

As there was a sufficient number of cases amongst those seen who had only taken of the town water, I visited the intake in company with Dr. McLean and Mr. Craig, engineer of "The Amalgamated Companies." The water was clear and bright, flowing at the rate of about two miles in 24 hours; the banks on both sides of the canal were clean and free from any buildings from which anything might come that would be likely to pollute; the small accumulation of bark at the pulpwood dump, close to the mill, being merely the daily quota, and could do no harm.

It having been suggested that the water might be polluted by discharges from the steel plant, I found that there is a large concrete sewer running from this place and emptying into a creek which flows into the river below the company's works, and there is no discharge from the steel plant other than into this sewer.

I have requested the M. H. O. to forward for examinations samples of water taken at both intakes, and at several taps in the town; also of the Grosvenor street spring, and of one on Spring street; also any others he may choose.

I recommended the M. H. O. to instruct the public to boil all spring and well waters, and would further recommend the immediate closing of all springs and wells in the town, and the adoption of some system for the regular inspection of premises and the cleaning of cesspools.

C. A. HODGETTS,
Medical Inspector.

CHLOROFORM AND DISEASES OF THE STOMACH AS CAUSES OF SUDDEN DEATH.

By Dr. J. J. Cassidy, Toronto.

Gentlemen: In popular estimation, sudden death, or death occurring rapidly in a person who, apparently at least, was a short time before in good health, may be due to murder, suicide, or the existence in the body of the deceased of unknown pathological conditions. Whatever the cause of sudden death may have been, and however obscure the circumstances surrounding it may be, people in general believe that an autopsy will reveal the cause of death, and in formulating this opinion the public mind and the medical mind are not far asunder.

This opinion certainly appears to be most reasonable, and, in the majority of instances of sudden death, an adequate explanation of the cause of the same may be confidently expected if a careful autopsy is made.

As Watson says in the 4th chapter of his Practice of Medicine:—"The several modes of dying, then, in cases of sudden death, are clearly enough made out. Let me briefly sum up the conclusions at which we have arrived. Life cannot be maintained without the circulation of arterial blood, and whenever a person dies, he dies either because no blood circulates through his arteries, or because venous blood circulates through them.

When it comes to pass that no blood is circulated through the arteries, we say that death occurs in the way of syncope, and this is of two kinds. In the one there is not blood enough received by the left side of the heart to

stimulate its chambers to contract, or to be sent onward by their contraction; in the other there may be blood enough, but the heart has not sufficient power to contract upon it. Also there are two ways in which death may be brought about in consequence of the circulation of venous blood through the arteries. In one of these the first step is the sudden shutting out of air from the lungs; the blood which arrives in those organs is not aerated, or rendered arterial, but circulates again as venous blood, producing a failure of the animal functions and weakening of the muscles, till it finally stagnates in the capillaries of the lungs themselves. In the other the animal functions are the first to suffer—insensibility occurs—the power which governs the movements of respiration, the respiratory centre, is in abeyance, the breathing ceases, and organic life is extinguished as in the former case."

These simple, yet lucid, conclusions of the English author are as useful to-day as when they were written, 59 years ago. A difficulty, however, is encountered by the pathologist who makes application of Watson's conclusions to the circumstances of an autopsy in which important anatomical changes are not discoverable. For instance, an individual reported to be in good health, who can talk, walk, and conduct the ordinary business of life fairly well, lies down upon an operating table, and after taking a few whiffs of chloroform, expires suddenly. Who can explain the deadly action or the primary effect of chloroform in this case? We all know that when chloroform is applied in a liquid state to the bare skin that it proves to be very irritating, acting like an acid, and practitioners precede its administration as an anaesthetic by the application of vaseline to the lips and nose of the patient, in order to save these parts from irritation. We are, however so accustomed to see even babes inhale it, that we cease to regard it as a specially dangerous drug, unless we are unfortunate enough to witness a death due to its effects. I shall not refer you to all the dangers involved in the administration of chloroform, but shall allude more particularly to the danger of primary shock.

Lyman says:—"It is during the initial stage of nerve excitement that such deaths have occurred, before the blood and the tissues could be saturated with the anaesthetic. The peripheral excitement of the fifth pair of nerves and of the respiratory filaments of the pneumogastric nerve by chloroform may be sufficient to inhibit the respiratory centres in the medulla oblongata, thus producing respiratory and cardiac arrest, just as a powerful mental emotion or a painful peripheral impression may effect the same result."

Prof. Poncet of Lyons, in reference to syncope from chloroform, says:—"The patient's death is said to have been caused by shock from chloroform, and is due to primary or laryngo-reflex syncope. An autopsy reveals nothing. It furnishes no explanation, and leaves the surgeon more perplexed than he was before." I shall not allude to the danger of primary syncope in chloroform administration further than to say, that, although chloroform is for some patients an active poison, capable of producing sudden death after a few inhalations, we do not possess any data as to the coefficient of susceptibility and of resistance presented by such on such a patient to these deadly vapors. In other words, an administration of chloroform to a person who has not taken it before may be looked upon as an experiment, extremely hazardous for some few persons, innocuous for others—the great majority. The real difficulty is that there are certain persons reported to be in good health who cannot take chloroform without incurring the danger of sudden death, and medical science cannot diagnose such cases.

There are others forms of sudden death, occurring in persons reputed to be in good health, which cannot be explained. An autopsy is demanded, and

the jury is surprised when the pathologist who makes the autopsy informs them that no adequate cause of death has been revealed. Popular imagination naturally begins to conjecture a number of causes, criminal or otherwise, which might or might not cause sudden death. As a contribution to the subject I propose to lay before you a brief abstract of an article read before the Academy of Medicine, Paris, March 15, 1902, by Professor Lancereaux.

His paper is entitled, "Rapid or Sudden Death of Gastric Origin." He said that sudden death occurring in persons who are apparently in good health is relatively frequent, but that the cause of it is very imperfectly understood. Deaths by embolism, by the rupture of an aneurism, or a rupture of the heart are rare. In many cases of sudden deaths nothing of importance is discovered when an autopsy is made; the heart is empty, as if death had been due to a spasm.

There is one variety of sudden death which is of rather frequent occurrence. It supervenes during the course of disease of the stomach. Death from this cause usually happens during the night, towards the end of the forenoon, or the end of the afternoon. The heart is sound, the nerve centres do not appear to be affected. A case of sudden death in which an autopsy revealed such conditions was mentioned. Prior to the attack which terminated fatally, this person had had a medical consultation, after which repeated fainting fits occurred, terminating in death. The fainting fits had been preceded by disorders of the digestive organs. Professor Lancereaux described a second case of a similar kind. He concluded that the preventive treatment of such a fatality would consist in endeavoring to ward off or cure dyspepsia."

In presenting this paper for your consideration, I wish, in the first place, to draw your attention to the fact that the idiosyncracy of an individual may cause sudden death from the inhalation of a small quantity of chloroform, no appreciable lesion of a vital organ being found at the autopsy to account for the unexpected result. In the second place, I think that the facts presented by Professor Lancereaux are deserving of the careful consideration of physicians, coroners, and medico-legal experts. His opinion that sudden death may occur from gastric disorder with no lesion discoverable at the autopsy, may help to explain a sudden death, the cause of which otherwise would remain obscure.

All of which is respectfully submitted.

J. J. CASSIDY.

REPORT OF COMMITTEE ON WATER SUPPLY RE SOUTHAMPTON PUBLIC WATER SUPPLY.

Toronto, April 9th, 1902.

Mr. Chairman and Gentlemen :

Your Committee begs to report on the plans and proposed source of water supply for the Town of Southampton. Herewith is submitted a copy of the analysis made in the laboratory of the Board. As stated in the letter of Mr. J. Galt, Engineer in charge, the source of supply is taken from a basin sunk in the sandy lake shore, and so far has been shown ample for the supply of the town.

The principle of taking water from such basins has been successfully utilized at Meaford, Kincardine, Port Hope, etc., and where the location is properly selected and sources of pollution from the land side are prevented, these have proved to be amongst the most satisfactory sources of public water in the Province. Analysis at other points has shown these waters to be, under ordinary conditions, underground waters from the higher grounds, and to have the qualities common to sub-surface waters.

In case much pumping is required, it is found that the basin obtains its supply from the lake as well as by percolation from the land side.

With proper care in protecting the basin from surface contamination, nothing more is required for insuring in such cases a clear, pure water in every way fitted for public use.

Your Committee takes pleasure in recommending the source of supply.

Respectfully submitted.

H. E. VAUX,
P. H. BRYCE,
J. DOUGLASS.

REPORT BY COMMITTEE ON SEWERAGE RE EXTENSION OF STRATFORD SEWERAGE SYSTEM.

Gentlemen : Your Committee begs to report upon the proposed sewer extensions in Stratford, referred to in accompanying plan and statement of the City Engineer.

With regard to the first extension, there is an alteration to some extent of the original McDougall plan. The change, however, is a slight one, and is evidently intended for the convenience of ratepayers. Your Committee approves of the proposed change.

As will be seen in the drawing, the second extension is an alteration of the original plan in which it is proposed, owing to a heavy cutting to follow a watercourse through private property. Certain provisions of the Municipal Act all provide for drainage outlets across private property ; and in this case it will be necessary to obtain consent and make compensation for use of land where proposed sewer is to run.

There seems no objection, so long as the city council arranges these matters of detail, to the proposed change.

Your Committee begs, therefore, to recommend that permission to make the proposed change be made.

It may be mentioned, that with extension of the coke-beds to seven, the area of the filters at Stratford, is now such, as with proper supervision to insure a good effluent from the sewage filter-beds.

All of which is respectfully submitted.

E. E. KITCHEN,
P. H. BRYCE,
JOHN DOUGLASS.

REPORT OF COMMITTEE ON SEWERAGE RE DISPOSAL OF WOODSTOCK SEWAGE.

Toronto, April 9th, 1902.

To the Chairman and Members of the Provincial Board of Health :

Gentlemen,—Your Committee begs to submit herewith its report on the proposed sewage disposal works of the Town of Woodstock.

The following report of W. M. Davis, C.E., Engineer in charge, is presented as a part of the report.

The various facts set forth in the following report give the Board an accurate idea of the work to be done, and Mr. Davis' scheme for accomplishing it:

The special reference to the very high amount of water pumped daily is of great importance, and points to the same conclusion referred to in the report of your Committee in January last, on the inexcusable waste of money in pumping in many cities on this continent, and the consequent greatly increased cost and difficulties in dealing with the sewage by a filtration plant.

How far the Board can go in regulating this first important point is not very evident ; but it certainly should support such recommendations as those by Mr. Davis for the use of meters for regulating the amount of water.

The scheme proposed is an extension both in amount and in detail of the sewage farm scheme, which this Board approved of in 1895, for the north water-shed of Woodstock, and includes the construction of septic tanks and filter areas at two points, one for the north drainage area and one for the south.

Without entering into these in detail, which are set forth in the report, it will be seen that the scheme provided for by Mr. Davis refers to the necessity for preliminary supervision of the character of certain industrial sewages, before allowing them entrance to the common sewers.

It is sufficient to say that the scheme commends itself to your Committee as scientific and up-to-date, and likely, should it be introduced, to remove all reasonable grounds of complaint regarding pollution of the Thames, if the farm be carefully managed and supervised by an experienced engineer and foreman.

Your Committee recommends the Board's approval of the proposed scheme.

All of which is respectfully submitted.

(Signed) E. E. KITCHEN, M.D.,
P. H BRYCE, M.D.,
J. E. DOUGLAS, M.D.

Berlin, December 23, 1901.

F. J. URE, ESQ., City Engineer, Woodstock.

SIR,—I beg to submit the following report on the disposal of the sewage of the city of Woodstock and on the sewerage of the South Watershed for the consideration of your Council.

The situation of the city on undulating ground, each of the streets having a rapid fall which quickly sheds the storm water, makes the separate system of sewerage which excludes the storm water peculiarly adapted for its requirements for the following reasons :

1. The small flow of the river Thames renders it imperative that the sewage of the city should be purified before being discharged into the river, and as the cost of purification depends to a great extent on the volume of the sewage it is desirable that the storm water should be separated from the sewage.

2. The steep grades carry the storm water swiftly to the nearest water course, whence it can without assistance find its way to the river without causing damage, so that while occasional stretches of covered drain may be necessary for the conveyance of storm water no connected system will ever be required.

The earlier sewers were designed to carry both storm water and sewage, but a trunk sewer to take only the dry weather flow from these sewers will work satisfactorily, as is shown by

the experience with the North trunk sewer, in which case an overflow to permit storm water to run into the open drain is provided in the connecting manholes. I would recommend that the same device be adopted for similar cases in the South watershed, and that in constructing sewers in the future the separate system be strictly adhered to.

Quantity of Sewage. The weir measurements of sewage with which you have supplied me show the daily flow of sewage to be, in the North watershed 340,000 gallons ; in the South watershed 130,000 gallons, total 470,000 gallons per day, which does not include the Simcoe Street or Dundas Street West sewer.

I have compared these figures with statistics from places about the same size and similarly situated and the quantity appears excessive. For instance Berlin with 10 miles of sewers has 327,000 gallons of sewage per day. Of this about 30 per cent. comes from tanneries and large factories which take large quantities of water. The quantity of domestic sewage would therefore be 228,900 gallons for 10 miles of sewers, or at the rate of 23,000 gallons per mile.

In the North watershed of Woodstock we have 6½ miles of sewers and 340,000 gallons daily of domestic sewage, or at the rate of 52,000 gallons per day per mile, more than double the amount discharged in Berlin. The reasons for this difference are apparent. Woodstock has a practically unlimited supply of excellent water, few restrictions are placed on its use, and the excessive quantity of sewage is undoubtedly due to waste of water.

In Berlin, on the other hand, the conditions are different. The supply of good water, though ample for all legitimate purposes, will not permit reckless waste. The Water Commissioners have accordingly encouraged the use of water meters, with the result that half the services are metered. Other services are restricted in their use, and all services are inspected periodically in order to detect leaky fixtures and careless or improper use of the water.

In the interest of economy in the disposal of the Woodstock sewage the waste of water should be reduced to the minimum. A great deal may be accomplished by house to house inspections, but there are no means so effectual as the introduction of meters.

Trunk Sewer. A trunk sewer for the South watershed should follow approximately the course shown on the plan from the corner of Norwich Avenue and Hounsfield Street down to the River Thames, a distance of about 11,000 feet, the diameter of pipe to vary from 8 inches at the head to 15 inches at the outlet, with grades shown on the profile. The sewer running half full will provide for a population of 7,000 people. Manholes about 500 feet apart would be necessary, and a flush tank at the head of the 8-inch pipe. Cedar Creek would be crossed by means of an inverted syphon, the manholes at each end being connected by cast iron pipe. A portion of the sewer between stakes 70 and 93, on account of the grade coming so near the surface of the ground, will require additional covering, as shown by dotted lines on the profile. For this portion of the sewer an alternative location on Main Street is practicable without adding to the total cost.

Disposal of the Sewage. Of late years many tests have been made and much has been written of bacteria treatment of sewage in septic tanks and contact beds, the latter being usually constructed of coke brize or screened gravel. In the septic tank anaerobic bacteria, which thrive and multiply in the absence of air, decompose and liquify the solids, liberating various gases during the slow progress of the sewage through the tank. In the contact beds the effluent from the tank is acted upon in the presence of oxygen by another species of bacteria called aerobes which depend on a supply of oxygen for their existence, and a high degree of purification is attained.

In some of the earlier disposal plants installed it was claimed that in the tank the whole of the solids were liquified leaving no sludge. A more prolonged experience however demonstrated the fact that on the inorganic matter at least the anaerobes can have no effect, and therefore provision must be made for the removal of a certain amount of sludge from the tank.

This system has been introduced in many places in the last two years and, while the issue has not always been as satisfactory as was anticipated, a close study usually reveals the fact that any failure or partial failure is due to careless management or to the admission to the tank of antiseptics which check the action of the bacteria in the tank. An epitome of the various results would indicate that with domestic sewage well designed tanks intelligently managed will produce satisfactory results, but that some factory and tannery refuse may require preliminary treatment before it can safely be admitted to the system.

In my report to the Woodstock council of 20th April, 1895, the question of sewage disposal is discussed at some length. The advantages and disadvantages of different systems are enumerated and intermittent downward filtration recommended as best suited for the North watershed of Woodstock. In the six years that have elapsed since that time different systems, of which I have knowledge, have had a longer test and the results have been satisfactory, and I am still of opinion that intermittent filtration will best satisfy the requirements of Woodstock ; but I would advise the use of septic tanks in connection which will enable the beds to be worked at a higher rate : that is, will enable a much smaller area of land to do the work and reduce the probability of the beds becoming clogged to a minimum. Near the outlet of the proposed trunk sewer is an area of about 3 acres of land of sufficient elevation above the level

of the river to be available for filtration of the sewage. Test pits show this material to be 18 inches yellow sand on the surface with 5 feet of gravel and sand underneath.

I would recommend the construction of two concrete septic tanks 90 feet x 16 feet x 6 feet with two grit chambers 10 feet x 10 feet x 7 feet, and the levelling and underdraining of one acre of land for the purpose of treating the tank effluent. Tanks of this capacity will hold nearly 12 hours' flow each of the sewage discharged in the South watershed at the present time and one acre would be ample to provide for the effluent.

For the North watershed I am of opinion two tanks of the same capacity will be sufficient. It is true the quantity of sewage to be treated is larger than in South watershed but, the area of land available for filtration is greater and will filter much more quickly than the land to the South. I would advise the levelling of three acres for this purpose.

I would advise that the tannery refuse receive preliminary treatment before admission to the sewers. The nature of this treatment will depend on the nature and quantity of refuse.

With regard to the future, both tanks and beds will be so constructed that their capacity can be increased should occasion demand it, but a restriction of the waste of water would keep the quantity of sewage below the amount provided for for some years to come.

The following estimate provides for the construction of the works described above.

Main Sewer—	Estimate.
From Burtch Street to Outlet	$7,943.00
Hounsfield Street Branch	979.00
South Disposal Works	4,542.00
North Disposal Works	4,413.00
	$17,877.00

I am, Sir,
Your obedient servant,
WM. MAHLON DAVIS.

REPORT OF STANDING COMMITTEE ON SEWAGE.

Toronto, April 9th, 1902.

Mr. Chairman and Gentlemen: Your Committee begs to report that the Government, acting on the recommendations contained in the Committee's report, presented at the last meeting of the Board, recommending that the Board be given such facilities as were necessary for carrying out a scientific investigation of such sewage disposal works as those of Berlin and other towns, where local complaints have arisen or may arise in future, has acted on the report, supplemented by a special report to the Premier by your Secretary, after a deputation from a number of cities had waited upon the Government, urging that a scientific assistance be given in the matter, and has appointed Mr. W. P. A. Robinson, B.Sc., Fellow in the School of Science, a chemist of several years' post graduate experience, to work in conjunction with Dr. J. A. Amyot, Bacteriologist of the Board, in giving special attention to the work at Berlin during the coming season, with a view to supplying the Board with such information as will enable it to make any additional recommendations to those contained in the Board's report of last October.

Dr. Amyot has, at my request, prepared the statement herewith presented of work already done, which contains a statement of conditions found similar to those reported upon by your Committee last October.

Dr. Amyot, after spending several days at Berlin, has now gone to Massachusetts to study the laboratory methods at the Lawrence Experimental Station, with a view of obtaining such information as will be of use in the enquiry.

It is hoped that at the next meeting your Committee will be in possession of such information as will enable it to take any further action in relation to the Berlin Sewage Farm which the situation demands.

All of which is respectfully submitted.

E. E. KITCHEN, M.D.,
P. H. BRYCE
JOHN DOUGLASS.

REPORT OF COMMITTEE ON SEWERAGE OF LISTOWEL.

Feb. 13, 1903.

Gentlemen: The Committee on Sewage presents for consideration the plans for the disposal of the sewage of the Listowel sewerage system.

After discussion, the plans were approved of, subject to the following provisos, on motion of Dr. Bryce, seconded by Dr. Kitchen :

1st. That the septic tanks of the system be extended, when necessary, from time to time, so that the capacity will always be equal to one day's sewage flow.

2nd. That the filter beds or other method for final precipitation of the sewage shall be of such area and construction, and be so conducted that the effluent therefrom shall be of a degree of purity satisfactory to the Provincial Board of Health.

3rd. That should any of the manufacturers disposing of factory wastes into the sewers of the town be found to discharge sewage of such a character as to place an unreasonable expenditure upon the town for purifying its sewage, it shall be a part of this approval that at any time the Provincial Board of Health directs the Town Council of Listowel to take any additional measures to purify its sewage, the Board reserves to itself the right to determine the means and extent of the same which any manufacturer must adopt to remove a definite amount of solids and deleterious matters from his sewage wastes before pouring them into the common sewers of the town.

4th. That the town shall adopt a Plumbing By-law similar in its provisions to that contained in Schedule "B" of the Public Health Act, or the Model Plumbing By-law issued by the Provincial Board in 1897.

5th. That the town must employ in the management of its sewage disposal works a competent engineer, to keep the same under supervision, and that he shall have direction of the workmen in charge.

(Signed) P. H. BRYCE,
Secretary of Provincial Board of Health.

Copy of Engineer's Report.

Listowel, 9th April, 1902.

To the Mayor and Council of the Town of Listowel :

Gentlemen,—As the disposal of the sewage is in Listowel a serious matter, the "separate" system of sewerage, which excludes the storm water, and thus keeps the quantity of sewage at the minimum, is best suited to the requirements of the town, more especially as the storm water can in any part of the town be conducted to the natural watercourses with but little expense.

The course of the sewer should be along the river valley to the right of the stream ; above Main street a ten-inch pipe will be sufficient, while a twelve-inch pipe will be necessary below that point ; these pipes running half full will carry off 400,000 gallons of sewage per 24 hours, or will provide, when running only half full, for twice the present population.

Manholes for purposes of inspection and maintenance will be required every 300 feet, and three automatic flush tanks to keep the sewer clean, should be located at proper points ; these flush tanks hold from 300 to 500 gallons of water, and are set to discharge at regular intervals, usually at from 6 to 24 hours, as occasion may demand.

Disposal of Sewage: As the Public Health Act will not permit the discharge of raw sewage into the river, some system of treatment for purification must be adopted.

There are several systems of sewage disposal in use, each of them applicable to certain conditions. I do not consider it necessary to burden this report with their several advantages and disadvantages, but think it sufficient to describe the system which I think best adapted to your needs: This is Bacterial Purification by means of septic tanks and filter beds. In this system the sewage is received in closed tanks holding from 12 to 24 hours' discharge; the sewage passes slowly through the tanks, the effluent being turned on to filter beds for further purification, the filtrate from the beds then passes directly to the river.

In the tanks the sewage is acted upon by bacteria called anaerobes, which thrive in the absence of air and light; these bacteria liquify all the organic matter in suspension, and the liquid passes on; the solids remaining are almost entirely inorganic matter, which settles in the bottom, and is very small in quantity. It will require to be removed probably once in six months.

Further purification is accomplished in the filter beds, where another species of bacteria carry on the work; these bacteria are called aerobes and depend for existence on light and air. These beds must be used intermittently, allowing time for the filling of the interstices with air between the doses of sewage. If used continuously the filters will become waterlogged and ineffective.

I would recommend that the disposal works be located near the crossing of the river by the Kincardine Branch R.R.; and that the works consist of two septic tanks holding about one day's flow of sewage, and two filter beds of about 1 10 acre area.

The following is an estimate of the costs:

Sewer from brewery to disposal works	$3,866
2 septic tanks, concrete, 40. ft x 12 1-2 ft. x 6 ft	978
2 filter beds, 40 ft. x 50 ft., 3 ft. deep gravel or coke	780
Land for works and right of way	300
	$5,924
Add for contingencies 15 per cent	839
	$6,763

Should the Government experiments, in progress at Berlin, indicate that preliminary treatment of the manufacturing sewage is necessary before admission to the sewers, the advice of the Government bacteriologist should be taken as to whether he considers preliminary treatment necessary here. I am of opinion, however, that nothing of the sort will be required except in the case of the Gas Works, where the water used in washing the gas contains quantities of tar, and the woollen works, where the sewage contains a powerful anti-septic, which may have a detrimental effect on the action of the tank unless neutralized before discharging into the sewer.

I am, gentlemen, your obedient servant,

W. MAHLON DAVIS, C.E.

THE SOCIAL PHASE OF SMALLPOX AND VACCINATION.*

By P. H. Bryce, M.A., M.D.

Prof. Sedgwick, of Harvard, in his recent work defines public hygiene "as the science and the art of the conservation and promotion of the public health." Accepting this as a practical definition of the scope of public health, it is evident that we may very properly discuss the relation in which diseases, of which smallpox is the type, stand to the interests of society, whether as individuals in a social unit or community or as citizens of a nation which enacts laws for the government of its own people. Much argument may be had as to the extent to which individualism or communism in its exact sense should be the underlying principle in legislation; but practical common sense and general experience, as seen in every-day business, in educational, municipal and religious affairs, teaches that what cannot be done so well by the individual alone, as by a number acting together for a common end, may properly come within the sphere of governmental and municipal action. The strength of this position may be pressed still further in any case where the action or inaction of one individual directly endangers the welfare or health of another. Such has been the subject of common action, even in those primitive communities, whether in past or present time, which have sacrificed a member of the tribe—even their choicest youth—to placate an offended deity, or who have put to death wendigoes or witches, supposed to exercise malign influences whether upon men or cattle. We may then properly conclude that in the instance of a contagious disease, and especially of smallpox, which to the most uneducated, as the western Indians, whose traditions tell of whole tribes destroyed by epidemics of it, is looked upon as so loathsome and terrible that armed men have been known to guard the banks of a stream to prevent men from an infected settlement crossing, the most primitive societies recognize that common action may properly be taken to avert what is or may become a general danger or calamity.

The postulating of such a principle for the action of society must seem to most people wholly unnecessary and commonplace in view of the facts illustrated by a hundred years of history; and yet, we have only to read extracts from the daily press, from many particularist magazines, and, indeed, from many so-called scientific journals, to learn the truth of that Scripture: "Where there is no vision, the people perish; but he that keepeth the law, happy is he," to find medical officers of even large Canadian cities assuming reactionary attitudes with regard to the duty of the individual and of the community in dealing with outbreaks of this disease—if the cases be mild—by means of vaccination and prompt and thorough quarantine.

However commonplace, it does seem necessary to recall a few facts culled from the pages of history. Dr. Brooke (1766 A.D.) says, in his General Practice of Physic: "Smallpox has been for ages, and continues to be, the terror and destroyer of a great part of mankind. . . . In the ordinary course and duration of human life scarce one in a thousand escapes the smallpox." Before this, indeed, Ben Jonson had written an epigram to smallpox beginning with:

> "Envious and foul disease, could there not be
> One beauty in an age, and free from thee?"

while at the beginning of the nineteenth century we are informed that 90 per cent. of all the inmates of hospitals for the blind in England were there on account of smallpox. Dr. George Bell, of Edinburgh, wrote in 1802 that the smallpox in Europe for more than 1,000 years has descended with undiminished violence from generation to generation, and every effort made

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hitherto to extirpate it has failed. Of epidemics in America we have statistics of Boston from 1721-1792, in which it is stated that there were seven epidemic years, during which the average population was 14,711, and the average number of cases 5,600, or 38 per cent.; while Simon says of it in the 16th century: "In Mexico it even surpassed the cruelties of conquest, suddenly smiting down 3,500,000 of population and leaving none to bury them."

Such was the monotony of history and statistics at a time when Jenner made his memorable discovery, imitating, except in the source of his virus, the practice introduced into England from Constantinople by Lady Mary Wortley Montagu of inoculation from a case of existing smallpox, and who wrote from Adrianople regarding the practice as early as 1717 A.D.

Of the effects of vaccination during epidemics, those in Montreal in 1885 may be given, where in 30.08 per cent. of cases died in the unvaccinated and only 4.1 per cent in the vaccinated. The results during the recent epidemic in London, England, have told the same story. Thus, in the statistics for the week ending December 20th, 1901, we find that of 97 unvaccinated there were 60 per cent of deaths, while of cases up to ten years in vaccinated persons not one death occurred, and only two between ages of ten and twenty.

Such are only a few illustrations selected from an unlimited mass of materials showing what smallpox as an epidemic disease was, and would be to-day were its prevalence as great and our defences against it as limited as they were before 1796. One of the most pertinent questions which we may ask ourselves, however, is: "Granted all these facts, is it not true that in the Province of Quebec fatal epidemics of smallpox have not appeared since 1885, and that in Ontario the total deaths since 1882 have not much exceeded 200; and yet systematic vaccination has not been carried out by the people or the municipalities during the past fifteen years?"

The question has been posited thus clearly so that those doctrinaires who, in the matter of smallpox, would preach the expediency of a policy of *laissez faire* and of allowing outbreaks of the disease to be dealt with simply as ordinary diseases are by practising physicians, leaving the matter of quarantine and vaccination to the individual intelligence and sense of duty to the public, must accept the position either that such a course of action within their own experience or from the accredited evidence of history has suppressed outbreaks, has prevented an increase of the death-rate, has not produced destructive effects upon health as disfigurement of features or loss of eyesight, has not been disturbing to the public comfort and sense of security and has not been injurious to their own or the general commercial prosperity of any community. Are such prepared to accept and occupy such a position? But while they may not do this they may fall back upon another and say: "No, we are not prepared to go so far, since we admit that common municipal and governmental action has at times been necessary to suppress severe and fatal epidemics; but, nevertheless, there are diseases, and at present smallpox in America is such an one, which are so mild in their effects, so little fatal, and yet so difficult to control without great inconvenience and expense to the public that it were better to simply leave their management to the individual citizen and his physician. For the moment let us accept the position. It has been estimated that during a single year, 1900, there were in the United States at least 100,000 cases of smallpox; while in Ontario alone during a single year there were some 2,500 cases. The deaths in all were not greater than 1 per cent. in Ontario, and probably no more than this in the United States.

Taking that in Ontario as a type of the outbreaks, it may be stated that not much less, probably, than $500,000 has been spent by the municipalities

and Government in preventing the spread of the disease. With regard to the number of persons liable to the disease, owing to their not being protected by vaccination—assuming, of course, for the moment, that successful vaccination in infancy is a protection up to ten years and very largely so up to twenty years—we may roughly estimate that of the population of Ontario, 2,182,947, the greater part of some 913,645 have been born since the fatal epidemic of 1885 in Montreal, during which vaccination was very general in Ontario. Since that year there have been a number of isolated outbreaks of smallpox in Ontario promptly stamped out; but not until 1901 did the disease become general, that is, having numerous centres, and as a result no general vaccination has been practised for upwards of fifteen years until the present epidemic. Assuming a relatively large number of persons in Ontario to be revaccinated in the 1,200,000 over twenty years of age, and it is apparent that the situation as regards the number in both age classes liable to the disease is very large, and that the mortality rates which prevailed in London during the epidemic of last autumn and winter, or of the outbreak at present existing in New York, would have prevailed in Ontario had that type of disease been introduced, and had there been as many cases during 1901 and 1902 as there have been. There were in all some 3,500 cases in fifteen months, which, with an average mortality of 25 per cent., would have meant nearly 900 deaths. It has been already stated that at least $500,000 is estimated to have been spent by provincial and municipal authorities in stamping out the epidemic, and that most active and drastic measures both of isolation and vaccination were adopted. What the extent of the outbreak would have been had such measures not been taken cannot, of course, be definitely stated, but several instances will serve to give us some idea. Owing to the disease in 1901 not having been early diagnosed, and few measures of isolation and almost none of vaccination having been adopted, 550 cases occurred in settlements and camps in an area of 150 miles along the C.P.R. in a population not exceeding 10,000, between Sault Ste. Marie and Sudbury, within three months. In October, 1901, a case unfortunately diagnosed as chicken-pox occurred in Dover Township, in Kent. For two months the disease had spread unchecked by any official action. Such, subsequently, for a time was not thorough. The total cases were nearly 400, not to mention many in neighboring townships arising from the Dover outbreak. In Osprey Township, in Simcoe County, in a most prosperous community, a mistaken diagnosis of the same kind in April, 1902, enabled the disease to get a start, and resulted, even with the most drastic methods subsequently, in 76 cases. In Burford Township, an old-settled and intelligent community, some 200 cases occurred in 1901 because the disease had first been called chicken-pox, and the local physicians had taken no steps to isolate cases or prevent the convalescents from attending schools and churches. The disease was only stamped out with difficulty, after thorough measures were adopted. Dozens of such examples, less notable simply because active measures for suppressing the disease were taken early, might be given; while the 10,000 cases in the six months of 1885 in Montreal, most of which had occurred before active municipal measures for its suppression were adopted, illustrate the fact that, with a contagious disease present the average good sense of any community does not serve to prevent its spread, unless when crystallized into organized and systematic methods of action.

It has been, we think, fully demonstrated to what an extent the present epidemic of smallpox of a benign character, beginning in 1899, would have prevailed in Ontario had the views of the laissez faire school and of anti-vaccinationists been accepted; and when they turn to statistics and point to the low mortality after all our trouble, we ask them are they prepared with

us to adopt drastic measures of every necessary kind when the disease with a high death-rate does really make its appearance? If they do—and this is the position of many believers in vaccination, both amongst physicians and municipal officers—they will have to explain by what conceivable means they are going to discover when an epidemic, like that from Japan in 1900, which killed nearly 50 per cent. of its victims, is going to appear, though even its first case in Port Arthur was so mild that it was not diagnosed, or at what moment virulent smallpox may arrive in Toronto from some hidden source in the slums of New York or Boston.* Perhaps it is natural that we, viewing these matters from the official standpoint, should seem to disregard personal inconveniences and even municipal expenditures; but it would seem that there can be no *via media*, no position which, as with some other diseases, can be adopted without the assumption of a responsibility as regards loss of life, family misfortune and commercial disaster, which none who recognize what an epidemic of smallpox means would care to assume. Probably by none must the mental perspective be more accurately maintained than by the physician; and this can only be maintained by the frequent readjustment of the instrument to a proper focus from time to time. Our memories are proverbially short, and mental pictures grow dim with surprising rapidity; but we do well to remember that Nature is ever the same in her methods and her results, and if she seems at times to present herself in tranquil mood, as where the whole woodland is perfectly mirrored in the placid bosom of some northern lake, yet the time will speedily come when her rugged work must be done. He is, indeed, the wise mariner who looks well to stay-sails and masts, to keep his vessel afloat and return unscathed to the desired haven.

*In May, 1900, an outbreak of smallpox occurred infecting many persons at different points between Winnipeg and Montreal, caused from exposure to a passenger from Australia *via* Japan to Vancouver, thence by C. P. R. The gentleman sickened on the train west of Winnipeg, was taken to the Winnipeg Hospital and died, as at first thought from purpura hemorrhagica. It proved to have been smallpox, and caused twenty-two cases and deaths in Winnipeg. Persons exposed on the train carried the disease to Eastern points. The first case at Port Arthur was mild and was not diagnosed, and resulted in the infection at that point and Fort William of fourteen persons and six deaths, at Arnprior of one person and one death, in Carleton Place of six persons and two deaths, in Montreal of six persons and two deaths, at Seine River of one case, at Sault Ste. Marie of one case and one death and at Wolfe Station of one person and one death.

SOME SCIENTIFIC AND PRACTICAL ASPECTS OF VACCINATION.*

By P. H. Bryce, M.A., M.D., Toronto.

Mr. President and Gentlemen of the Medical Society of the State of New York:

I have to express my appreciation of the honor conferred upon me through the invitation to address your society on a subject which, however old and hackneyed, becomes, in view of its present importance, one of extreme interest.

After a hundred years since Edward Jenner's discovery had been accepted in Europe, and by some of the more eminent physicians of America, we find a disease, which in the eighteenth and preceding centuries had its victims indifferently in the hovel and the palace, so little prevalent that until within the past three years the majority of living physicians in America and Canada had never seen a case of smallpox; and as it has happened the greater number of cases which have been seen on this continent recently have been so mild that we have to go back to the days of Sydenham, in the seventeenth, and Van Swieten, in the eighteenth century, to find a parallel for this anomalous type of the disease. It has not been, therefore, unnatural that to those inexperienced in the appearance of the disease, and even to those familiar with the type of the disease as it has appeared when introduced from Europe, much doubt has arisen as to whether or not the disease which, brought from Cuba in '898, has spread so widely over the Southern, Western and Central States and Canada, has been true variola.

One supreme test of vaccination has enabled us, however, to prove conclusively its nature, since it has been so successfully combatted by that wonderful discovery of Dr. Edward Jenner, as the numerous outbreaks which from time to time have previously appeared since 1800. What he taught, in brief, was that by vaccination we introduce by inoculation a disease which causes a vesicle of a particular character on the teats of a cow or on the tender skin of the belly of a calf, the virus of which when inoculated into a person produces a vesicle of a peculiar character. We now know, what Jenner and other experimenters of his time, believed, from their experiments in variolation or inoculation with smallpox virus, that a similar vesicle can be produced through inoculating several calves in a series with virus from a smallpox patient, and that this smallpox virus thus modified produces in other calves, in man, in monkeys, and in guineapigs a vaccinia which protects against smallpox completely in practically all cases for ten years, in a large percentage for twenty years, and which, though decreasing, continues to protect against the severity of an attack of smallpox to a large degree throughout life. In the absence of any knowledge of the germ theory of disease, it is natural that Dr Jenner and his associates should not have arrived at any clear idea of how this protection was produced, further than that it was the same as that caused by other eruptive maladies, whether in man or animals.

Not until Pasteur's discovery of the germs of anthrax and chicken cholera, and his success in producing immunity by the cultivation of the micro-organisms of these diseases, did it become possible to formulate any theory as to how the protection by inoculation with the germs of a disease was brought about. Without discussing modern experimental evidence regarding immunity, we have only to realize the organism of any bacterial disease as a simple cell, having its environment within the body, subject to variations, just as in nutrient media, and multiplying and completing its life-cycle in the body, obtaining its pabulum from the fluid tissues and their contained cells, and producing substances peculiar to itself, acting upon and being

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reacted upon by the normal tissue-cells, in order to understand that its pabulum may be exhausted as in a culture medium, that its products may become auto-toxines, and that they may stimulate in the tissue cells of the body the production of compounds inimical to the further development of the micro-organism of the specific infection.

We, therefore, very properly may conclude that as the bacillus of diphtheria grown outside the body produces its toxine, which, introduced into horses, produces the anti-toxine, whose quality and antidoting strength can be measured, so the variolous or vaccinal germ produces its toxine, which stimulates the tissue-cells to produce their anti-toxine.

That such is actually the case has been experimentally proved, especially by Beclere and Chambon, of Paris, who have shown that active vaccine lymph may be neutralized by adding to it in test tubes the serum from vaccinated heifers, or from men, or monkeys recently having had variola. We have every reason, therefore, to conclude that variola is a bacterial disease, and that Copeman's, Klein's, and others' claims that they have isolated the micro-organism of smallpox or vaccinia are founded upon fact.

The progress of vaccinal immunity in calves has further been admirably illustrated by the experiments of Beclere, and Chambon, in which subcutaneous injections of active glycerinized lymph were made, and subsequently epidermal inoculations were made on succeeding days from the 3rd to the 7th. The effect on the vaccine vesicles when the scarifications were made after the fourth day, were (a) vesicles appearing sooner than in normal vaccination; (b) vesicles modified in external appearance, rapidly arrested or aborted in development; (c) lymph having little or no virulence when taken from vesicles after the fourth day. Such, in brief, is the basis upon which the immunity caused by vaccination rests; and it must be satisfactory to all who have followed the marvellous results of the biological study of infectious diseases carried on during the past quarter of a century. It is, however, a remarkable fact that while the practice of protective and curative inoculations in the instance of diphtheria have been generally accepted both by the profession and the public, there has grown up during the very period in which the experiments which form the groundwork of all our theories of immunity have been carried out, an opposition both to the theory and practice of vaccination against smallpox, which even in conservative England, which claims the honor of the great discovery of Dr. Jenner, resulted in 1898 in the introduction of the conscience clause in the Compulsory Vaccination Act.

Wherein, then, lies the origin of this opposition? Primarily, I believe it lies in the simple fact that vaccination laws are compulsory. We have, in fact, no other law compelling persons to subject themselves to inoculation with a disease at a time when they are in perfect health, and when, as a matter of fact, no cases of the disease may exist in their community, nor, indeed, in their country. In the second place, the fact exists that in an occasional case unfortunate results have followed the operation, giving some reason for the objections which have been raised. What moral grounds, then, can we have for our insistence upon the necessity for such legislation; and if such can be shown to have a basis in reason, what are the logical deductions to be drawn as to the moral duty laid upon the State which institutes such legislation?

With regard to the first question, we have several answers:—(1) That vaccination has during a century been the means of reducing the mortality from a disease, which previously caused one-tenth of all deaths in European countries, to the lowest of any of the infectious diseases which we have to combat in temperate climates. (2) That the theory of the immunity caused by it is based upon experimental evidence which has completely revolutionized

the practice of medicine, and produced results in the instance of such diseases as anthrax, rinderpest, plague, and diphtheria, which are comparable to that of vaccination itself. (3) That inasmuch as the infectiousness of smallpox is incomparably greater than that of any of these diseases, experience in every country has shown that, while sanitation, isolation, and disinfection, play important parts in the work of prevention, even the most complete sanitary organizations have failed again and again to eradicate the disease from a community without vaccination. (4) That we have the marvelous fact that vaccination is adequate to protect completely against the disease after exposure has taken place, even up to the fourth day, and of reducing the severity of the disease to a non-fatal issue in almost every instance where vaccination is concurrent with the smallpox.

If, then, we have such potent reasons for persisting in our demands for compulsory vaccination, we must be prepared to accept the fullest responsibility for the position taken, which must be that, if we insist on compulsion, we shall not, through indifference or neglect, allow anything to exist or take place by which any element of danger can enter into the results of the operation.

I am quite prepared, gentlemen, to admit that while any serious results which have ever been shown to follow the operation are in practice infinitesimal compared with the total number of operations, yet the secondary effects of the operation at times from the ethical standpoint have been such as to clearly inculpate either the producer, the operator, the patient, or two, or, indeed, all three together.

As regards the producer, we must realize that while bovine vaccine has been produced and used largely during the past twenty years in America, the methods adopted being in the hands only of private producers, would not be likely to be improved beyond the scientific knowledge of the biological theories, explaining the modes of its production. Not until bacteriology had made known to us the part played by staphylococci and streptococci in pyemia and septicemia, could we understand why the secondary infections were unnecessary and avoidable complications of vaccination, recognized, however, as to their existence, even by Jenner, who said, "That the most material indisposition, or at least that which is felt most sensibly, does not come primarily from the first action of the virus on the constitution, but that it often comes on if the pustules be left to chance as a secondary disease." Hence it was not uncommon, up to quite recent years, for lymph to be taken from vesicles on a second, or even third day, and for clamps to be used for extracting the largest amount of lymph possible from the vaccinifer. Within the last ten years, however, with the experimental work of Blaxall, Copeman, and others, all this has changed; and to-day we have producers everywhere supplying or endeavoring to supply a vaccine free from extraneous organisms. As usual, the very virtue of the method has become in some instances a defect, and it is found that at times the activity of the virus itself has disappeared. New producers have entered the field, widespread outbreaks have created unexpected demands for vaccine, and between inexperience and commercial necessities, the practice of vaccination has been injured by lymph at times of excessive virulence, and oftener by that having no protective value. It is, therefore, apparent that until all vaccine sent to the operator has been tested, and indeed standardized, as diphtheria anti-toxine, by experiments on persons and animals, we must feel that the ethical demands of the situation have not been altogether met. That it would make lymph more costly can be no valid reason for its not being done, and no State with a compulsory law can evade the responsibility for neglecting to demand of producers that all vaccine supplied be tested,

or, failing to secure this, must supply adequate facilities for its production by qualified State officers. When we turn to the operator, or public or private vaccinator, we find that while the State licenses medical practitioners, there seems to have been everywhere on this continent a growing neglect on the part of medical colleges to either teach the theory or illustrate the practice of vaccination. We find lymph which has been stored for weeks in a drug store used by the practitioner as if it were an inert mineral drug, incapable of change; and while, in a surgical operation of another kind, the practitioner may carry out aseptic precautions to an almost absurd extent, he will invade the uncleansed epidermis with, perchance, an unclean scalpel, and, after scarification, leave the unprotected wound to its fate, with an unthinking disregard of whether its course may be normal or a dangerous secondary infection supervene. In all this the personal elements as regards scientific knowledge and personal responsibility from the ethical standpoint are points which, perhaps, it would be too much to make the State responsible for; but if the credit of vaccination is to be lessened or a single person injured by the operation, then it is clearly the duty of the State to allow such compulsory work to be performed only by responsible, trained, public vaccinators, and to establish heavy penalties, as is done in Germany, for any unqualified person performing the operation, or for proved carelessness on the part of a public vaccinator.

It is apparent that to institute such a system legislation of a kind similar to that of England and Germany would be essential. In England, and especially in Germany, compulsory vaccination is accompanied by provisions for the production of vaccine by State establishments, where the responsibility for the production of tested lymph properly rests, and whence lymph is supplied to qualified public vaccinators, appointed by the municipalities. The system further provides for the regular and systematic vaccination of infants, and of vaccination on entrance to the schools, and to the army and navy. Such desiderata are making themselves felt more and more on this continent, where increasing urban populations and the facilities for the transmission of infection through the extending travel by railways, are yearly becoming greater.

With regard to the individual responsibility for unfortunate results of the operation, but little need be said. If the vaccinator does not warn the patient of the precautions to be taken we may expect that the latter too frequently, through ignorance, will be lacking in a knowledge of the care necessary to protect himself. He ought to be taught to know that he is inoculated with a disease, and that for the short time required he must consider himself a patient. In the 1900 report of the Medical Officer in charge of the vaccinations at the National Vaccine Establishment, London, we are informed that out of 1,892 primary vaccinations, eleven on subsequent inspection showed some abnormal course, most of which consisted of "sore arm," caused by domestic maltreatment.

In view of the distribution by producers of lymph through the journals of this country, and through advertising circulars within the past three years, of statements regarding vaccination, which at times have been at variance with the authoritative teaching on the subject, it may not be ill timed to refer briefly to the question of what constitutes a normal lymph and a normal vaccination. It must be remembered that for years we have looked upon a good vaccine as one which by its more rapid evolution will within eight days have developed so complete a vesicle that it will serve to protect a person inoculated up to the fourth day after an exposure to smallpox, the incubation period of which is from twelve to fourteen days. We learn, from report after report of the National Vaccine Establishments in England, Ger-

many, and France, that the vesicle on the calf is mature within ninety-six to one hundred and twenty hours after inoculation. So fixed for many years was the period of maturation of the vesicle in man, that the compulsory laws of England required all children to be brought on the eighth day for examination of the pock. According to Copeman, of the London National Establishment, glycerinated as well as crude lymph, if normal, will have produced by the seventh day a vesicle five or six mm. in breadth, with a glistening, translucent margin of a nacreous or pearly appearance, with the pale red areola, the rest of the surface presenting a more opalescent, bluish-white appearance, while the patient suffers from malaise, with some inflammatory fever, and involvement of the axillary glands. From this pearly margin our old teachers took the lymph on the eighth day for arm-to-arm vaccination. With this picture so constant for a hundred years, it is astonishing that we should recently have had new teachers informing us that glycerinated lymph produced normal vaccination when a vesicle had matured on the twelfth day, without, as many of us know, presenting the pearly border and characteristic vesicle which we have been taught to look for. It is apparent that if we were to accept this new teaching, the protective inoculation after an exposure to smallpox would become impossible. Fortunately, this new doctrine was short-lived; and, personally, I have been able to demonstrate even to the satisfaction of producers, that a normal lymph, even though it may have had to overcome some slight immunity, was able to produce in a patient so vaccinated an eighth day vesicle of a quite typical character. Such lymphs, we have, unfortunately, had good reason to know, have not only not protected against another vaccine, but have not protected against the mild type of smallpox, which has so generally prevailed. It has, hence, become essential to the maintenance of the credit of vaccination that the public officials as well as the profession should not only have perfectly clear ideas as to what a normal vaccination is, but that they further be placed in such a position in their several States and cities as to insist upon the use of only such vaccines as will produce normal vesicles and effective immunity.

One of the results of these new theories has been to cast discredit on the very great advances which have been made through the introduction of aseptic glycerinated lymph. Articles everywhere have been appearing in the medical press condemning unsparingly glycerinated lymph; and, from the standpoint of the results above indicated, with some reason. But it is apparent that when we can obtain statistical results collected from hundreds of public vaccinators under an organized system, where, as in England, in the year ending March 31st, 1902, lymph for 974,595 vaccinations had been sent out from the National Vaccine Establishments, and where for the quarter ending December 31st, 1901, 264,044 vaccinations showed a success of 97.9 per cent., and an insertion success of 93 per cent., we have a basis of fact which should wholly disabuse our minds of the idea that glycerinated lymph is a failure.

The actual figures published are :

	Cases.	Case Success per cent.	Insertion Success per cent.
Primary vaccinations	126,209	98 6	94.0
Re-vaccinations	134,835	97.2	92.0

Another theory which has likewise had its rise in these modern days of "sweetness and light" is that one scarification is sufficient for protective purposes. Contrary, perhaps, to what the theory of immunization might lead us to conclude, viz., that so long as the system becomes inoculated, it does not make any difference how the lymph was introduced, whether by one or five scarifications, we have the statistics of more than half a century proving absolutely that it does make a difference whether much or little lymph be introduced. We have long been accustomed to say that a well-pitted person will never take smallpox again; and we presume this is true. We say that a child which has suffered from a severe type of measles or scarlet fever is absolutely immune against another attack; and in practice this is true. We surely, then, are justified in saying that, just as the very slight protection produced by a twelfth-day vaccine has not established an immunity even for a month against an active vaccine, so a single scarification does not allow the same absorption at one time, as several would, of a virus whose activity is to overcome the vital resistance of the tissue cells, and will not, therefore, call up the same degree the vital energy in these cells to produce those anti-bodies, whatever their nature, upon which we now depend to explain the immunity.

The table of Mr. Manson, surgeon to the London Smallpox Hospital from 1836-67, of 13,755 cases of smallpox, seems conclusive on this point:

13,755 cases of Small-pox classified according to the vaccination mark on each.	Percentage of deaths.	
	1835-1851 (3,094 cases).	1852-1867 (10,061 cases).
Stated to have been vaccinated, but no cicatrix	21.7	39.4
Having 1 vaccine cicatrix	7.6	13.8
" 2 " "	4.3	7.7
" 3 " "	1.8	3.0
" 4 " "	0.7	0.9
Unvaccinated cases	35.5	34.9

Such facts seem to be conclusive, and fortunately they do coincide with most of the knowledge we have concerning this wonderful fact of immunity against eruptive diseases, either through contagion or experimental inoculation.

It is apparent, gentlemen, that the few practical questions I have touched upon only serve to illustrate to what lengths the subject would lead us, if we attempted to do it justice. It is, however, the practical side to which public officers of health have constantly to direct their attention; and it is apparent that we on this continent, with our democratic methods, have been hitherto greatly limited in our powers to either control the quality of vaccines which have been supplied, or to produce in State establishments products which would fulfil the requirements.

Within the last year, however, official opinion has been crystallizing, and its conclusions, briefly stated, would seem to be: (1) That official supervision of the products of vaccine establishments by either State or Federal officers is imperatively demanded; or (2) that the production in State or Federal vaccine establishments of adequate supplies of vaccine of established quality, to be sent out free or at cost to municipalities, has become a necessity.

It is not necessary here to enter into a discussion of which scheme is preferable; since, while Government production in Germany, England, etc.,

has proved itself a success, it cannot be forgotten that in some respects our democratic methods do not always conduce to that permanency of the civil service and freedom from political complications which are necessary to efficient performance of scientific work. On the other hand, the unlimited capital and keen competition of the large commercial houses supply in many ways facilities for the production of standard articles, and their maintenance at a high standard of excellence, which, perhaps, few individual States could attain to. Personally, I am convinced, however, that no matter which scheme is adopted, there is demanded before everything else adequate legislation whereby from year to year qualified public vaccinators must be appointed in every municipality, who shall be empowered to vaccinate systematically all children born in any year, and that through the responsibility laid upon them, and the routine methods established, such men will become experts in the art, and will gradually obtain such a store of information as will prevent the use of any except standard vaccine, and by the care exercised be able to anticipate and prevent those accidents which we have already referred to as seriously injuring the credit of this greatest triumph of modern medicine.

Cases and Deaths from Contagious Diseases from 675 municipalities.

(Annual Returns for 1902.)

Smallpox.		Scarlatina.		Diphtheria.		Typhoid.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
2,797	12	3,452	290	2,696	408	1,542	242

Total Deaths from Contagious Diseases and other causes by months for the year 1902. Average Population reporting, 90%.

Date.	Scarlet Fever	Diphtheria.	Measles	Whooping Cough.	Typhoid Fever.	Tuberculosis.	All Causes.
Jan.	28	48	21	7	31	169	2023
Feby.	38	34	21	16	25	177	2241
March.	42	47	18	12	14	232	2479
April.	13	36	15	10	24	233	2490
May.	20	30	13	13	18	184	2201
June	35	20	10	16	16	207	1844
July	5	19	2	7	13	152	2015
Aug.	10	18	0	21	26	172	1912
Sept.	11	25	0	9	52	173	1951
Oct.	18	60	1	8	54	170	2028
Nov.	21	45	3	11	34	147	1874
Dec.	41	62	2	14	56	148	2150
Total	282	444	106	144	363	2,164	25,208

THE SEWAGE DISPOSAL OF SUBURBAN HOUSES AND PUBLIC INSTITUTIONS.

By Dr. P. H. Bryce, M.A., M.D., Secretary.*

To the President and Members of the Ontario Architects' Association:

Gentlemen: It gives me pleasure in complying with your invitation to prepare a paper on some sanitary problem connected with your work, to present a paper on the title indicated, as being of extreme importance, connected as it is directly with the problem of "Pure Air in Houses," which I discussed before you last year.

As we are well aware, there is a more or less marked difference in the air of country places and of towns and cities, indicated by a small excess of carbonic acid (CO_2) in the latter, and the absence of ozone, or oxygen in a nascent condition, due to the excessive presence in towns and cities of organic matters on the surface, in houses, lanes, manure heaps, drains, and so on, constantly undergoing decay or reduction to simple compounds by the action of various living organisms, especially bacteria, which utilized oxygen in their biological processes. Sometimes they find this oxygen in the organic compound itself, especially in the azotic or nitrogenous compounds, but also in the carbon compounds of a starchy character; in other, and under ordinary circumstances, they utilize the oxygen free in the air. As will be supposed, there are different species or classes of this minute form of largely vegetable life, some of which do not thrive in free oxygen and air, and some forms which live within the bodies of animals and external to them in free air as well.

To the first class Pasteur long ago gave the name an-aerobes, or microbes living apart from air, and the second he called aerobes, or those which require free oxygen for their development.

The two classes have properties differing more or less from one another, one especially peculiar to an-aerobes being the liquefying of organic compounds by growing into these, and really dissociating their solids, as, for instance, gelatine, forming, of course, by-products during the process, both of gaseous and liquid character. The constitution of these chemical compounds varies; that of the gases being principally CO_2, H_2O, H_2S, and many highly organized volatile compounds, such as those given off by the breath of man and animals, those from the many foods and fruits, which develop during their mellowing and decay, and especially the extremely unpleasant emanations given off from putrefying meat, fish, and the solid wastes, which pass off to the sewers as excreta, and kitchen and house wastes of every sort. It is a fortunate fact that the products of aerobic decomposiion are less disagreeable and injurious than those from an an-aerobic decay, since such are those which are most constantly exposed to air from surface decomposition of outside matter everywhere. With these preliminary rmarks, it will be easy to see something of the nature of the problem to be dealt with in disposing, safely and conveniently, of the house wastes which go by the name of sewage, or those matters which are conveyed by water into underground pipes or sewers.

It is the experience of every local health officer, and a source of constant difficulty to the Provincial Board of Health, that in those towns where a sewerage system does not exist, and in many houses in the suburbs of towns, even where such systems are, in rural districts, and in the large temporary summer resorts, hotels and cottages, the problem of what to do with excretal

* Paper read at the annual convention of the Ontario Architects' Association.

matters, both animal and vegetable, has been everywhere, if not difficult, yet the most constant one which the Local Boards have to deal with in the matter of nuisances, and which, in many cases, proves the most constant danger to the household immediately interested, and where streams or lakes are polluted, not unfrequently has become the occasion of some sudden and serious outbreak of typhoid fever or diarrhoeal disease. The fact that 253 examinations of water were made during the past season by the Provincial Halth laboratory shows that the causal relationship beween polluted water and typhoid and diarrhoea is well recognized, and general observation, as well as laboratory work, is quite agreed as to the direct connection between such pollution and some accumulation of decomposits of animal or vegetable matter. Privy vaults, deep pits, or cesspools, constant contamination of the area around the house pump with kitchen washings, and slops of every kind, hotel stables and barnyards, soakage from slaughter houses, the wastes from cheese factories and creameries, and the heaps of refuse from canning factories, and indeed every kind of manufactory in which organic products are used, may become direct means of pollution to wells and sources of public water, and many are, moreover, the cause of serious injury to health from their creating effluvium instances.

Now, perhaps, gentlemen, as it may be only occasionally that as architects you are called upon to deal with more than one of these sources of ill-health, viz.: this one of the disposal of house sewage, including excreta, kitchen and chamber wastes, in places where there are no public sewers, it is most essential than some general principles should be laid down and acted upon, with a view to the safe, economical and aesthetic method of disposing of such organic wastes.

Probably every one here accepts the theory that in the economy of nature nothing can be lost, or that matter is indestructible, and perhaps all will, in a general way, agree that whatever is yielded by the soil, as, for instance, the potash, phosphates, ammonia, and so on, which are contained in the grains and other fruits of the earth, should be given back to Mother Earth for her goodness to us. So, in spite of man's foolish waste and ignorance, they ultimately are returned to her, but at an enormous cost of time and energy. Carried to the sea, sewage will form deposits ultimately forming new land, or in solution will become the food of microscopic vegetable forms of many species of the deeper ocean planthon, and of the larger plants of the ocean littoral, which in turn become the food of the microscopic infusoria, and finally the food of fishes, molluscs, and other sea animals, and so is brought back finally as food to man. Were we intelligent and careful, we would see to it that not a single pound of organic waste matter is allowed to decompose out of its place: in other words, to so act as to return to the earth every ounce of C, H, O and N, which taken from the humus or upper layer of soil, is year by year being used up by cultivation, and must be returned there, if fertility of the soil is to be maintained.

As, however, it is found in practice in most parts of this country that there is a lack of appreciation of the manureal value of such materials, and that the adoption of what is known as the dry-earth system in houses and institutions has not proved free from objection, owing to neglect to supervise it carefully, owing to its cumbersomeness, and as, moreover, it does not do away with either the need for water pipes, and a supply of water being laid on in the better houses, or of the need for disposing of the kitchen and chamber wastes, in any case it is evident that the growing appreciation of modern conveniences in houses is demanding some systematic method for dealing with all house wastes, whether for kitchen or closet by the water-carriage system.

I propose, therefore, to indicate how in practice such a system may be established, at once efficient and economical. In the Annual Report of the Provincial Board of Health for 1898 a chapter is devoted to "The Biological Principles Involved in the Purification of Sewage," which to those interested will be found to contain a very full discussion of the scientific principles of this whole matter. There will be found a table giving the average analysis of town sewage. While probably less concentrated than the sewage of a single house, since it would contain water from factories, from sub-soil drainage, and so on, yet it will very well serve as an illustration of the contents of sewage. It is as follows:

(1) Solid matters in suspension—		
(a) Organic	20	grains per gallon.
(b) Mineral	10	" "
Total	30	" "
(2) Solid matter in solution—		
(a) Organic	20	grains per gallon.
(b) Mineral	50	" "
Total	70	" "

Or expressed in parts to 1,000,000 such a sewage would yield:

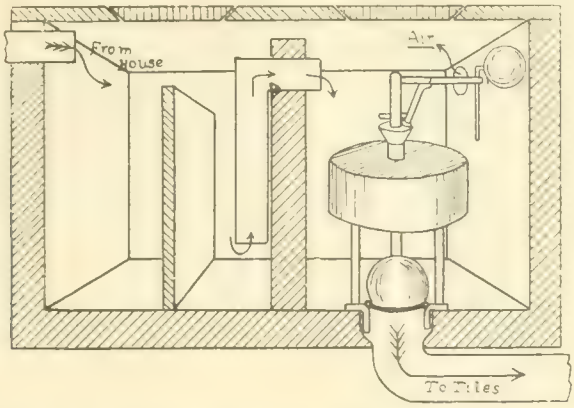
Total solids.	Solids in suspension.	Chlorine.	Free ammonia.	Albumenoid ammonia.
1,428.0 parts	428 0 parts	120.0	50.0 parts	10.0 parts

Assuming what is in experience ample, 20 gallons per head per diem of sewage, it will appear that for an ordinary dwelling, with 10 inmates, with a water supply laid on, there will have to be disposed of daily 200 gallons. By reference to the analysis, it is clear that half the organic matter, or that in suspension, could easily be removed by any crude filtering method, as by a screen, a grit chamber, or even by passing over coke or some readily destroyed material, should it become clogged.

Assuming, however, that all the materials are carried to a common receptacle or tank at the end of the house sewer, there will be deposited daily 8,000 grains of organic matter, whether suspended or in solution, and 12,000 grains of mineral matter, or altogether some 3 pounds, of which two-fifths is organic, or is capable of undergoing decomposition, most of which will gradually be carried away when dissolved in the 200 gallons of water daily passing into the receptacle, the balance of carbon gradually being deposited in the tank. Of the mineral matter 50 parts are in solution, as potash, lime and other salts, which will likewise be carried away in the water. It thus appears that some 100 grains of insoluble mineral matter will deposit in the tank daily, with small amounts of carbon, or in 365 days for such a household not more than 10 pounds of mineral matters will have accumulated. That such is true may readily be proved by anyone caring to make the experiment, as I have done, that such a tank at the end of a year has not had a total deposit of solid matter, greater than can be held in a half-bushel measure. If the balance, then, after decomposition, is capable of being carried along with the 200 gallons of water daily, it is clear that nearly all of it is capable, like any other soluble material, of soaking away into the soil with the water, if the conditions are favorable.

I have had drawn up for your inspection the diagram of a tank, which is intended to deal with such materials in a way to give the organic matter an opportunity to decompose, the water carrying the soluble materials being

gradually removed from the decomposing tank, which we may call the septic tank—the word septic meaning putrid or decomposing—to a second tank, whence it may be discharged by a simple apparatus, at such intervals as may

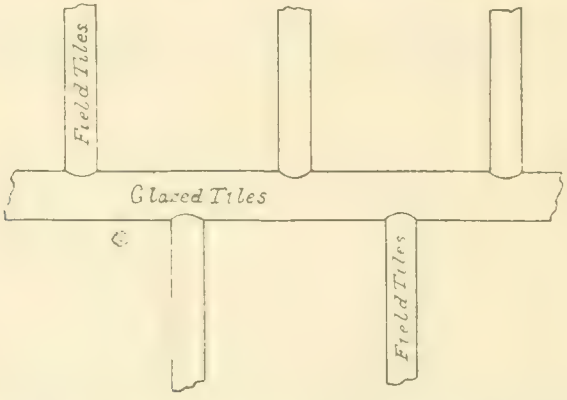


be found practical to produce the best results. The question then arises: In what manner can we dispose of this organic matter in solution, conveniently and in such a way as will not create a surface nuisance, or a pollution of ground water? Let us assume that by a series of sub-surface tiles, laid in a proper manner, we can distribute the 200 gallons over an equal number of feet of surface. It is plain that each square foot would receive 1 gallon of water daily. As soils vary in their capacity for water, from a coarse sand which will hold in its interstices not more than 25 per cent. of its volume of water, to a tenacious clay, which holds 75 per cent. of its own volume of water, it is apparent that if one gallon of water were poured on the surface of a cubic foot of dry soil, there would not be any water leaking away from the bottom of even a coarse sand, since a cubic foot of water equals 6.25 gallons; so that it requires 1½ gallons to be poured on such foot of dry sand before it begins to drain away from the bottom. A dry clay would hold three times as much before it began to leak. In practice it will be seen that two four-inch tiles, laid side by side, would distribute such water fairly well over the surface of a cubic foot of earth; and also that the water contained in them soaking out of the open joints and pores of the tiles, would rapidly dispose of the small amount of water received by each tile daily. In practice it is found that in any ordinary porous sandy soil or sandy loam, tiles filled twice daily will rapidly dispose of the charge of soluble sewage poured into them; and, lifting up tiles after several years' use, I have found them lined only with a fine stain of black carbon, the volume of the tile not being materially lessened. I have further found that even heavy clay soils, with an occasional underdrain, have been quite adequate to dispose of the amount of sewage poured into them from an institution of 125 inmates.

It may be proper now to briefly describe the method of construction of such a system of tanks and sub-surface tiles. As in any system of house sewerage, it is convenient to arrange all the fixtures so as to discharge into one soil pipe. These being brought out beneath the ground floor through the foundation, or, if the house be on a hillside, it may occasionally be possible to bring them out under the cellar floor, so that the washtubs there may be discharged into them—if this unsanitary place for the laundry be adopted—the soil-pipe will be led to the top of a tank made of brick and cement in

a manner similar to that shown in the diagram. If most convenient, this tank can be built directly against the house to save iron pipe, and to prevent its appearance on the lawn, since, as will be seen in a moment, it is necessary that the discharge pipe of the tank on level ground be not more than a foot beneath the surface. The capacity of this tank in the case we are discussing will be such as to hold in each compartment 100 gallons, to be discharged twice daily. It will be seen, therefore, that a compartment 2x3x3 feet will nicely hold 100 gallons, or a tank of interior measurement, 4 feet long by 3 wide and 3 deep, is adequate for two compartments, each holding 100 gallons.

The arrangement of the interior of the tank is shown in the diagram. As in all sewage tanks, the plan is adopted of having several divisions, the sewage becoming less dense as it passes from one to the other, thereby aiding to make that discharged from the valve chamber as thoroughly liquid as possible.



It will be seen that from compartment No. 1 to No. 2 the fluids are drawn off by an overflow pipe from about midway beneath the surface, since at the bottom will be found sediment, while the whole surface is covered with the decomposing matter, which appears to the eye a solid mass, but is really the organic material kept floating by the contained gases of decomposition. The liquids which pass over, of course, contain a large amount of organic matter in solution, being composed especially of ammonia (NH_3) and carbonic acid (CO_2), combined as ammonium carbonate with the sulphur compounds as ammonium sulphide. These are held in the second compartment until 100 gallons have accumulated, at which moment the flush valve operates automatically, and discharges in a minute or two the contents of the tank into the sub-surface tiles. It is apparent that the size of the tanks may be made such as to deal with 1,000 gallons quite as readily as with a 100.

The sewage thus discharged must, it is evident, be carried to tiles so laid that each tile will get its own share of sewage, and no more. It is apparent that with a rapid discharge the tiles laid on an exact level will each receive this amount, if together they hold exactly 100 gallons, provided the air which is in them be displaced. It is found in practice that in a loose soil the air from tiles laid near the surface readily gives place to the water, if discharged under the head in the tank. Where the soil is level, as of a lawn or garden, it is apparent that the matter is a simple one. If on a slope it is equally apparent that some careful detail work will be necessary in order that the tiles may, at the same time, be kept at the same depth beneath the surface, and also receive each its own share of sewage. To complete the description

of the tank, it is apparent that as some gases, in excess of what are in solution, may be given off into the space over the sewage, it will be necessary to prevent them from accumulating, and forcing themselves through the cover of the tank. This is obtained by making the cover of rough boards, and if thought proper, they may again be covered with earth and sod. The gases, if any pass outward, will be absorbed by the soil. In addition to this, however, it is necessary to provide for the ventilation of the tank. This is done by a 4-inch goose-neck leading from the distal end of the tank, which admits cold fresh air, and thus will displace the warm gases of decomposition, which are carried up through the soil pipe to be discharged above the roof, as in ordinary house plumbing in cities where the separate sewerage system is in operation. It may be asked, what ultimately becomes of the organic matter carried away in solution? In reply I would say that through the action of the microbes of the soil the ammonia salts are rapidly nitrified—that is, are changed into nitrates or nitric acid, which at once combines with the lime and potash salts of the soil, and thus has become a neutral salt in a condition to act as plant food for the grass or vegetables growing above it.

The following table by W. D. Scott Moncrieff, from the Ashstead, England, experiments, 1895, illustrates the change:

Effluent from cultivation tank.

Chlorine.	Free N. H. 3.	N. Oxygen Consumed.		Nitric Nitrogen.	Total Oxidized N.	Total N. of all kinds.
9.0	12.5	10.3	9,843	0.12	0.12	12.46
From final filter tray after complete nitrification.						
7.5	0.25	0 2	0 58	9.0	9.0	0.6

As the tank arrangement from which these experiments are taken was essentially a tank of this kind, except that, instead of the microbes of the earth to do the work, Moncrieff had arranged a series of artificial filters, holding pieces of coke, over which the sewage from the septic tank flowed, by which means the liquids for analysis could be obtained, there is nothing different in principle to the system we are discussing.

Little more need be said, I think, to make it clear that in these results of the study of biological processes, which convert organic matter back to its original constituents, we have not only a practical lesson of how to apply science to our every day needs and convenience, but we may also see how economical is Nature, and how wholly wise in her operations if she does not have man attempting, in his ignorance, to violate some of her primary laws. To me it daily seems more true, the more that I try to comprehend the meaning of the processes of Nature in this fine old world of ours :

"That nothing walks with aimless feet,
That not one life shall be destroyed,
Or cast as rubbish to the void,
When God hath made the pile complete."

PART III.

ANNUAL REPORTS OF LOCAL BOARDS OF HEALTH.

REMARKS ON THE REPORTS OF THE LOCAL BOARDS OF HEALTH

There have been received up to date the reports of 675 municipalities, and of this number only 122 Medical Officers of Health have forwarded their reports upon the sanitary condition of their several municipalities.

The return of cases and deaths from contagious diseases in the 675 municipalities is given in table A, page 172; but from the statements of the several clerks it is quite apparent that the number of reported cases is much smaller than the actual number which have occurred, there being in many of the rural municipalities a lack of care on the part of both physicians and householders in notifying the local authorities. That such is the case is quite evident from the discrepancy which occurs between the number of notified cases and deaths under the group "Tuberculosis"; the fault is doubtless in a large measure due to the neglect of the Local Boards to furnish both medical men and school teachers with printed forms for this purpose, only 30 per cent. of the municipalities reporting stating that the system is in operation. If Medical Officers of Health would see to it that the law is complied with in this regard, our statistics will be of greater value, and the public receive better protection, since in 65 per cent. of the municipalities systematic isolation of these diseases is now carried out, and with better notification there will necessarily follow a quarantining of many cases that heretofore have been a danger to the communities in which they live. The notification is the actual forerunner of systematic isolation, and both are of equal importance.

Perhaps in connection with this important question of notification, and one which must receive the serious consideration of Boards of Health generally, is the necessity which exists for isolation hospitals for the care of infectious diseases. At present something less than 10 per cent. of municipalities have any provision whatever for cases of scarlet fever, diphtheria, or smallpox, and none whatever have any accommodation for the quarantining of exposed persons. To wait until the necessity arises seems to be the principle which actuates Local Boards. This temporizing policy can only result disastrously. Indeed, this year several examples might be instanced where, although repeatedly warned by the Medical Health Officer to prepare a building before an outbreak has happened, large numbers of houses have been placarded, to the great injury of the trade of the place, and the outbreak has been nearly over before the isolation hospital has been in running order. A number of the towns and townships have very wisely provided themselves with the double-walled tents for this purpose, and for small places and rural districts they offer an economical and efficient means of isolating either the cases or suspects. Their portability is another advantage in the case of townships. The Isolation Hospital erected by the City of Ottawa for the treatment of cases of diphtheria and scarlet fever is a valuable addition to

this class of institutions, and cannot fail to be a means of preventing the spread of these diseases in the capital. Both in internal arrangement and external appearance it ranks as one of the best in the Dominion, and the Local Board of Health is to be congratulated on its completion.

It is very gratifying to notice the increase in the number of municipalities where disinfection after contagious diseases is carried out under the supervision either of the Medical Health Officer or the sanitary inspector. That in more than half the municipalities this important measure is carried on systematically is of itself a guarantee that the spread of these diseases has been materially lessened. To still further lessen their spread, it is urged upon all Local Boards of Health that they provide each medical practitioner practising within their several municipalities with blank forms on which to report such cases, in conformity with section 17 of schedule B of the Public Health Act, and it is most important that both Medical Health Officers, and Secretaries of Boards, see that the law is carried out in regard to this most important matter. In their annual reports many medical officers state that they "have reason to believe that considerable laxity exists regarding the reporting of infectious diseases."

Apart from the widespread outbreak of smallpox, which has been of a severer type than in former years, there have been no very serious epidemics. The type of scarlet fever which prevailed during the first three-quarters of the year, was extremely mild, but in many instances became very malignant during the last three months. The reports which continue to be received point to the fact that its malignancy is rather increasing than diminishing.

There have been reported outbreaks of mumps, measles, and whooping cough, but with the exception of that in the Township of North Oxford there is but little to note. In this township the Medical Health Officer reports that there were hundreds of cases of measles of a severe type, many adults being attacked, and "almost everybody who was not immune took the disease, which in many cases was complicated with bronchitis or pneumonia."

A pleasing feature of the reports is the decrease in most municipalities of enteric fever, and in all of diphtheria. The first was marked by a mildness in type, and the latter, by the general use of antitoxin in both as a curative and a prophylactic measure. The Town of Port Arthur reports 209 cases of enteric fever, with 11 deaths; but it is only fair to state that a number of these cases, no doubt, came from the surrounding district for treatment in the hospital, thus reducing the total number among the townspeople. Another place where the disease was very prevalent was Sault Ste. Marie. The number of cases was very large, but in the absence of definite information we can say nothing. A report was made on the condition of affairs in the early fall by the Inspector of this Board, who attributed the outbreak to pollution of the wells and springs by surface drainage.

During the year there has been some progress made in regard to notification of and disinfection after cases of tuberculosis, and a number of the Medical Health Officers have recommended action along these lines, and it is apparent that the time is not far distant when such wise measures will become general, and as much or greater care will be taken to notify, isolate, and fumigate in this diseases as in any other of the group.

The most important preventative measure which Local Boards of Health have overlooked to enforce, through their municipal councils, and on the neglect of which has cost many a municipality thousands of dollars during the past three years, is that regarding vaccination. The situation can be best illustrated by the following extracts from the Medical Health Officers' reports.

"I find very few of the inhabitants under 25 years old who have been vaccinated."
"No general vaccination for some years."
"The law of Ontario which requires vaccination of all children attending school has remained a dead letter."
"Vaccination although made obligatory on all residing in this municipality is, I am sorry to say, almost universally ignored."

and in reply to the question, "are new school children vaccinated," not 10 per cent. of the reports reply in the affirmative. There is, then, but little wonder that smallpox has made so much progress in some sections of the Province, and in view of this serious neglect to protect themselves, municipal authorities have in some instances had heavy accounts to pay.

While the interest taken in the proper methods to be adopted in the case of tuberculosis, whereby its spread may be prevented, is very general, as yet there is no systematic notification, and only in a few instances have Local Boards taken any precautionary measures. The Town of Petrolea carries out disinfection in cases of tuberculosis, under supervision of an officer of the Board.

The adoption of some simple rules which would be applicable in most cases would be of material assistance in preventing its spread. These rules should be made applicable to workshops, factories, and schools, if the work is to be done thoroughly.

The reports of the Medical Officers of the rural districts speak very favorably of the marked improvement in matters of domestic sanitation, as they concern the farm house and its surroundings. It is a subject well worthy the attention of every Local Board of Health, and one, once instituted, cannot fail to be appreciated by all (a hint from the beneficial results to personal health). The following are a few extracts on the subject :

M.H.O., Tp Derby :—"The voluntary compliance by the public to the matters of domestic sanitation is a subject of congratulation."
M.H.O., Etobicoke :—"I am pleased to state that the people are every year paying more attention to the sanitary condition of their premises, and a better condition of the public health is the result."
M.H.O., Antrim :—"For some years our board has given energetic attention to the sanitary condition of the township and I am pleased to say it is meeting with very satisfactory results indeed."

What these townships are doing and have done every similar Board can do, and should do at once.

Two very important matters yet remain to be touched upon, viz., the inspection of dairy cows and the licensing and inspection of slaughter houses. From the returns received it is very evident that some municipalities pay but little attention to either. The importance of agriculture both to the dairyman himself and the general public is very great and far-reaching, and it should be the aim of Local Boards of Health to maintain the standard, as high as possible, especially in view of the fact that the industry has reached such a degree of importance in the Province. The subject of slaughter-house inspection is only secondary in importance, but can the more readily be handled on account of the small number of each in a municipality.

The reports of the Medical Health Officers of the towns of the Province show that progress is being made in sanitation generally, and it is particularly gratifying to notice that in many instances these officers anticipate the public wants by suggesting either the introduction of waterworks, the establishment of sewerage systems, or the erecting of isolation hospitals. Others, again, draw attention to the need for a scavenger system.

As the reports of the cities of the Province are published in detail, no reference need be made thereto.

The general outlook is most satisfactory, from a sanitary standpoint. There is every evidence that the public is appreciating the need for sanitary reforms, as provided for in the Public Health Act, and year by year they are bettering the conditions of both our rural and urban districts.

BRANTFORD.

Report of the Medical Health Officer.

Brantford, Nov. 1, 1902.

To the Chairman and Members of the Local Board of Health :

Gentlemen,—I herein submit to you a report of the Sanitary Department for the year ending October 31st, 1902 :

Mortuary Statistics. The number of deaths, exclusive of still births, recorded for the period of this report was 245, which in a population of 17,021 gives a mortality rate of 14.33 per thousand.

Among the causes of death we find : Typhoid, 4 ; diphtheria, 12 ; tuberculosis, 36 ; pneumonia, 24 ; meningitis, 7 ; cholera infantum, 4 ; all other causes, 158.

It was also noted that regarding ages of death, 42 were under 1 year, 71 under 5 years, 61 over 60 years, 16 over 80 years of age.

Typhoid Fever. With regard to typhoid fever, during the past year we have been fortunate in having the lowest number of cases for the past six years, viz., 43 cases, with 4 deaths, and, as compared with last year, when 67 cases, with 7 deaths, were reported, it is quite a gratifying record.

And taking into consideration the water supplies as a factor in the disease, it was found that, notwithstanding the benign influences of the abundant rainfall, etc., of the past summer upon the wells, it was from this source, particularly in the unsewered portions of the city, that our typhoid occurred, viz., of the above 43 cases, 27 were well, 7 well and city, and 9 city water users ; of the latter, in the majority of cases, extreme local conditions, such as bad drainage, etc., were present.

I think, therefore, the above facts urge upon us the necessity of not only abolishing all wells, but that the lower and undrained portions of the city should be supplied with public sewers.

Scarlet Fever. During the past twelve months 37 cases of scarlet fever, with no fatalities, occurred, infecting in all 29 houses. The cases for the most part have been extremely mild, as the absence of any deaths would indicate.

Smallpox. Two cases of mild smallpox occurred during the fore part of the sanitary year, one having as a source of infection a case reported in last year's tary year, one having as a source of infection a case reported in last year's records, the last being from a patient who contracted the disease in the neighborhood of Jarvis, in the Township of Woodhouse, and who visited here when he developed the disease, but returned to his home before it was known what he had. Both the above cases ran the ordinary course and made good recovery.

Measles, Chickenpox, and Whooping Cough. Of the above, 37 cases were recorded at the Health Office, with two deaths, one of measles, the other of whooping cough.

Diphtheria and croup. Of diphtheria and croup we have had, after two or three years of comparative freedom from the disease, during the past year 72 cases, with 12 deaths, the cases occurring for the most part sporadically, with but few cases of any history of direct source of infection from pre-existing cases. Particularly has it been noticed that adults were largely in this class of cases, while the deaths were amongst the infantile class, most of whom had the laryngeal type of the disease.

The cases for the most part have occurred in the lower lying portions of the city, where in most instances the cellars were wet and buildings damp,

which was undoubtedly an active factor in rendering patients susceptible to the invasion of the bacillus, which not infrequently exists in healthy throats, awaiting a proper condition for development, and which, I believe, in not a few cases of unsuspected sore throat is the causative factor, and, in not being brought to notice, frequently spreads the infection again, from the variable time the baccilus remains in the throat after the disappearance of the membrane in patients isolated. A stated period of quarantine is not always satisfactory. This brings up the advisability of a laboratory, in which a bacteriological examination, both of suspects and convalescents, should be made to determine the wisdom of their mingling with the public. Now, as I have before brought this matter before you, and as the above is only one of the many needs for such a laboratory in connection with the Department, I am quite sure you will agree with me that the advantages that will arise from it will more than compensate for the outlay, which I must say is an absolute necessity to the office.

Garbage system. In the matter of garbage system, I feel that the Board is of one accord, and realize its necessity both as a public convenience and a public safety, and I would once more recommend that the Board urge upon the City Council its views in the matter to have it established and put in operation at the earliest possible date.

Isolation Hospital. As the province of this Board has in matters relating to contagious diseases much in common with the administration of the Isolation Hospital, and more particularly with the indigent class of patients, for whose treatment the hospital is largely required, and for the medical care of which some provisions are necessary, therefore, since the responsibility of this matter affects both this Board and the hospital, I think that for the mutual advantage of both some one should be appointed to attend to this matter at the earliest convenience.

All of which is respectfully submitted for your consideration.

I am, your obedient servant,

T. G. E. PEARSON,
Medical Health Officer.

Report of Sanitary Inspector.

To the Chairman and Members of the Local Board of Health:

Gentlemen: The following is a brief report of the work performed by your Sanitary Inspector during the past twelve months:

161 inspections of premises for contagious diseases, and serving 109 notices upon schools, churches, and library in connection with the same; 160 sewer notices were served, and inspections of the work from time to time, to see the progress of the work, of which 90 are now complete, 70 not yet attended to; 64 complaints for general nuisances were investigated, and the cause removed.

Besides the above, with the taking over of the night soil contract by the city, I had to visit in all about 4,000 premises to find out the sort of closets in use, over 3,000 of which were dry earths and 150 pits. All the latter I have had cleaned and abandoned, except where they comply with the requirements of the law. Since the 1st of February I have had to look after the cleaning of all these closets, and furnish the city clerk with a complete list of them. Since the beginning of the year about 100 have been abolished by the parties owning them making sewer connections, while about the same number have been added through the building of new houses where sewers are not to be had.

During the year the dairies have been inspected, and about 30 milk permits granted.

I have also, from time to time, collected samples of milk from the different supplies to be tested, and assisted in the testing of the same.

All of which is submitted for your consideration.

I am, your obedient servant,

(Sgd.) J. A. CHAPMAN, S. I.

STRATFORD.

Report of Medical Health Officer.

To the Chairman and Members of the Local Board of Health:

Gentlemen: Appended you will find report of Sanitary Inspector Durst, which will give you a statement of the sanitary work done during the year.

The citizens have much to be thankful for, for scarcely in the history of the city has it been so free from contagious diseases, as in the last year. Only two cases of scarlet fever and one of diphtheria were reported since last April.

The case of diphtheria was brought in from a neighboring city, but by careful watching and isolation, no other cases developed.

Not a single death has been recorded from scarlet fever or diphtheria. Two deaths occurred during the year from whooping cough, and one from typhoid fever. Consumption again heads the list, 14 deaths being reported as occurring from that disease. In 1901 there were 10 deaths, in 1900 10, in 1899 12, in 1898 13 from that disease, a slight increase over the previous years, or, taking the entire number of deaths, one out of seven died from that disease.

In a previous report I mentioned the steps that were being taken towards the erection of a hospital for the treatment of those suffering from consumption. I am pleased to state that steady progress towards that end is being made.

No further steps have been made towards the erecting of a place for treating contagious diseases. Advising, entreating or soliciting seems to have no avail.

Continued progress is being made in the sewage disposal works, and the laying of sewers. The active chairman keeps up his usual zeal and vigor.

Your obedient servant,

J. A. ROBERTSON.

Sanitary Inspector's Report.

To the Chairman and Members of the Local Board of Health:

Gentlemen: I have the honor to submit to you my Annual Report of the work done during the year, ending October 31st, 1902.

I had the usual number of health notices posted up in the month of April, and had one clause calling attention to the letter box at the health and relief office to leave any notices or complaints to be looked after. There were in all one hundred and fifty-four notices left, which were all promptly attended to.

Inspected all cellars in business part of city, and note quite an improvement in the majority of cellars; but there are still a number of merchants where I had to call repeatedly to have thorough cleanliness enforced.

Had considerable trouble with lane on north side of Ontario street, east of post office, partly on account of so many repairs to buildings and change of tenants, and also to the weather being unfavorable, which caused considerably delay in removing rubbish.

I placarded, in all, nineteen dwellings during the year for contagious disease, eight of which were for diphtheria, and eleven for scarlet fever; all of which were thoroughly disinfected. Also all dwellings where persons died from consumption were thoroughly disinfected.

In company with Medical Health Officer Robertson, I inspected the milk supply of the city, visited all dairies, inspecting all cows as to general health, and barns and surroundings as to cleanliness and ventilation; took samples of water from wells where cattle are watered, and also that used for washing milk cans.

Collected samples of milk whenever called upon to do so by Medical Health Officer Robertson, reports of which had been in the daily papers at the time.

Inspected all back yards, lanes, and alleys, and had accumulation of rubbish there removed, and in general, enforced all regulations of the Health Act.

All of which is respectfully submitted.

Yours obediently,

GEO. DURST,
Sanitary Inspector.

Stratford, November 17, 1902.

LONDON.

Report of Medical Health Officer.

To the Chairman and Board of Health:

Gentlemen: In presenting my annual report, for the year ending November 15th, I have to repeat what I said in last year's report as to the very satisfactory condition of the city's health. Five hundred and seventy-four deaths occurred during the year, exclusive of 34 still-born, which are not counted in mortuary statistics. Consumption, as usual, carried off the largest number, viz.: 65, as compared with 48 last year, and 60 the year before. Pneumonia, also a disease of the lungs, comes second in the list, with 48 deaths. Leaving out what is called heart disease, which may mean anything, organic disease of the heart caused the deaths of 43 persons, and cancer, 29. There were 18 deaths by violence, of which two were suicides. There is a very satisfactory and comforting increase in the number of deaths from old age, viz.: 36, from octogenarians to the century mark. The number of deaths due to infectious diseases is comparatively small, viz.: 25, as follows: Diphtheria, 20; typhoid fever, 3; measles, 2, and none whatever from scarlet fever. This is a very low death rate from what is called preventable diseases for a city of London's population, and breaks the record for typhoid and scarlet fever. It is especially so when the difficulties contended against are considered. Many parents show an utter disregard of the golden rule, allowing their children, while convalescing from mild forms of scarlet fever, to mix with other children; send them to stores, and sometimes to school. Placarding a dwelling is a notice to the public to keep away from that dwelling, and that the inmates must remain at home, but there are cases where it would require the establishment of a "peaceful blockade," by a police

constable, to effect complete isolation. Some of the city physicians are equally culpable, for they, knowing the requirements of the Public Health Act, at the solicitation of the parents, do not report all the cases coming under their notice. Although there were no deaths during the year from scarlet fever, there was an unusually large number of sporadic cases of a mild type, many of them due to the carelessness of parents and neglect of physicians. Hereafter physicians and householders neglecting to promptly report all cases of infectious diseases, in accordance with the Act, will be given opportunities in the police court to explain why they did not do so.

The death rate for the year is 14.6 in the 1,000.

One hundred and seventy-eight herds and dairies were examined during the year. One cow was found with actinomycosis bovis (lump jaw), and destroyed. An examination of 161 samples of milk gave an average of 4 per cent. of butter fat; 2 samples had cream added, and 2 cream removed. The average shows that London is being supplied with good milk. The public ice supply comes from the same sources as allowed by the Board a few years ago, and has been of fairly good quality; that obtained from the Cove being sold for cooling purposes only, and so far there is no evidence that it has been used in any other way.

No improvement has been made in the Covent Garden Market. The building should either be put in proper condition, or town down.

Several complaints were made during the year that the Talbot Street School is not in a sanitary condition. There were bad odors in the school at times; especially was this the case upon reopening the school in September, after the holidays. This school is heated and ventilated by the Smead Dowd system, and as long as the doors and windows are kept closed, the furnace and stacks will both heat and ventilate. But these large furnaces can only be used in the winter. For ventilation when the furnaces are not in use, also for the destruction of waste material, two small stacks are kept burning during the summer, and accomplish what they are intended for. During the holidays these are not kept burning; consequently, when the school opened in September, one or two weeks elapsed before all waste matter was rendered inocuous. This is the way the Smead system works, and it can work no other way. It will heat buildings well, but for ventilating purposes it is not safe. So far as the Talbot Street School is concerned, I do not think there will be any further trouble, and the janitor is a very efficient one. Traps have also been put in the water pipes.

The last two cases of smallpox were discharged from the isolation hospital in February last. No epidemic visited the city during the year.

The population of the city, according to the Assessment Commissioner returns, is 39,265.

T. V. HUTCHINSON,
Medical Health Officer.

ST. CATHARINES.

Report of Chairman of Local Board of Health.

To the Mayor and Council of the Corporation of the City of St. Catharines:

Gentlemen: I have the honor to submit my report on the sanitary condition of the city, for the year ending the 15th day of November, 1902.

Contagious Diseases. We have been remarkably free from contagious diseases and zymotic diseases during the past year, as will

be seen by consulting the accompanying report of the Secretary of the Board. There was one case of smallpox which developed itself here, having been contracted in the city of Cleveland, Ohio. The house in which the disease occurred was, fortunately, rather isolated, and was, in consequence, more easily quarantined. His Worship the Mayor, in order to meet the emergency, appointed Dr. R. H. Smith, who held the position of Medical Health Officer during the existence of the three cases of smallpox last year, to take charge of the case; and the Board of Health stationed sanitary guards near the premises containing the patient, to prevent unauthorized ingress and egress. Three inmates of the house were exposed to the contagion, but they were successfully vaccinated, and none contracted the disease. The result was satisfactory, so far as accomplishing the result sought for was concerned; but a good deal of expense was incurred, as the family had to be sustained by the city, and the bread-winners confined to the house until all danger of spreading the contagion was obviated. It is earnestly to be hoped that the council, both on financial and humanitarian grounds, will take steps to secure a building for the housing and treatment of contagious diseases, at as early a date as possible, inasmuch as the city is liable at any time to be subjected to the invasion of smallpox, from outlying localities, where it often exists in an epidemic form, owing to neglect on the part of the sanitary authorities to take and maintain proper precautions.

Flush Tanks. Two flush tanks have been installed this year—one on Welland avenue, near Napier street; the other on Wellington and Lake streets, near the Simcoe Canning Factory. Both of these tanks, as well as those in other parts of the city, have been recently examined by the Sanitary Inspector and Mr. O'Neill, and have, without exception, been found to be in good working order.

Water Supply. I had the pleasure of examining the source of the water supply of the city, through the kind invitation and courteous hospitality of the Water Commissioners. I was much pleased to observe the marked improvements they have effected in the surroundings of the upper and lower reservoirs. I particularly noticed the inlet of the water at Higgins' flume, and am convinced that the method adopted there to properly aerate the supply as it passes from the canal through the flume, is as efficient as it is simple, and that it must serve, in a measure, to oxidize and neutralize the objectionable and unsanitary characteristics of the organic matters which the canal receives between Port Colborne and the intake at the flume. It is greatly to be desired that the Water Commissioners should be placed in a position to enable them to make the necessary alterations by which to accomplish the thorough cleansing of the lower reservoir; as it contains, under cover of the fresh and pure-looking water, a dense substratum of black, foul smelling, organic debris, in a state of decomposition, which it would be unsafe to disturb until connections can be made to supply the city with water from the upper reservoir.

Anti tuberculosis. The recent and very important medical congress in Berlin, Germany, for the discussion of the best methods for the prevention and cure of tuberculosis, should stimulate all sanitary and municipal authorities throughout the civilized world to take precautionary measures to guard the public against the causes which lead to its inception and development, both in men and lower animals. It is a source of satisfaction to find that the steps taken by our Council and Local Board of Health, to make the practice of spitting on the sidewalks and in public places punishable, were recommended for universal adoption. The dissemination through the atmosphere of dried

tuberculous sputa is now recognized as one of the most fertile sources of tubercular infection; and the course pursued here, of stamping on telegraph and trolley poles throughout the city the prohibition of the practice of promiscuous expectoration, will, if the police do their duty, prove an undoubted benefit, and a safeguard to our citizens. The efforts being made by the Council to utilize the borrowing powers, obtained from the Local Legislature, for the construction and maintenance of good roads, and the extension of our sewerage system, are to be highly commended. Should this privilege be granted, the results cannot fail to be beneficial, from a sanitary point of view, as it will enable the Council to take steps to abolish the unwholesome latrine vaults, of which constant and quite justifiable complaints are being made to the Local Board of Health by citizens in certain residential sections of the city, where this malodorous nuisance more extensively prevails. It is gratifying to notice the very marked reduction in the number of deaths from tuberculosis during the current year. Twenty-five deaths from tubercular disease having been reported for 1901, and only 18 for 1902, a difference of nearly 30 per cent. in favor of this year, such a marked improvement must, in a great measure, be due to improved sanitary surroundings and greater precautions, both public and private, to guard against contagion. The hospital authorities are to be commended for the steps initiated, at the recent meeting of the trustees of that most excellently managed institution, to provide accommodation for the reception of persons suffering from contagious diseases. The total number of deaths recorded during the year within the city limits was 162. Deducting from this number those inmates of the hospital from outside localities who died here, and also those who died from old age, premature birth, accidents, and suicide, I find that the rate of mortality per 1,000, based upon a population of 10,590, is 12.18, which I consider to be a most satisfactory showing, and good evidence of the healthful condition of the city. The services rendered by the Secretary, Sanitary Inspector, and the acting Medical Health Officer, have met with the entire approval of the Board; and the limitation, both last year and this year, of the smallpox cases to the quarantined houses, is convincing proof that all the sanitary officials performed their duties in a very creditable manner.

All of which is respectfully submitted.

E. GOODMAN, M. B.,
Chairman Local Board of Health.

Report of Sanitary Inspector.

To the Chairman and Members of the Local Board of Health of the City of St. Catharines:

Gentlemen: Your Sanitary Inspector begs to submit his annual report as Sanitary Inspector to your honorable Board for the year ending November 15, 1902. And would say I have made eight houndred house-to-house visits, placarded twenty-six for contagious diseases, and fumigated six where contagion had existed. I have visited and inspected the following places: City and county cow byres, slaughter houses, hide houses, city livery and hotel stables, and canning factories, and have pleasure in saying all are well kept and in good sanitary condition. I have regularly tested the milk from the licensed milk vendors; the register has been very satisfactory, none registering below 90. The city scavengers have removed over eight hundred

barrels of night soil, and performed their duties well. The city flush tanks have frequently been inspected during the year, and very recently; they are working very satisfactorily.

All of which is respectfully submitted.

A. BOULDEN,
Sanitary Inspector.

St. Catharines, 15th November, 1902.

E. Goodman, Esq., Chairman Local Board of Health:

Dear Sir: I have the honor to submit to you herewith a statement of the number of deaths occurring in the city of St. Catharines, from 15th November, 1901, to the 15th November, 1902, and the causes thereof, together with a statement of the number of contagious diseases reported during the same period:

Apoplexy	5
Appendicitis	3
Accident	2
Alcoholism	2
Asthma	1
Bronchitis	8
Bullet wound	1
Broken back	1
Congenital weakness	4
Cancerous affections	9
Convulsions	3
Cholaemia	1
Cholera infantum	1
Consumption	18
Drowned	2
Diphtheria	1
Epilepsy	1
Erysipelas	1
Enchondroma	1
General debility	1
Gangrene	1
Hemorrhage	5
Heart disease	14
Inanition	2
Inflammation of lungs	1
Insanity	1
Kidney diseases	5
Meningitis	4
Marasmus	1
Mal-nutrition	2
Neuritus	1
Obstruction of bowels	1
Paralysis	4
Paresis	1
Peritonitis	2
Placenta praevia	1
Pneumonia	14
Premature birth	1
Protracted birth	1
Rheumatism	2
Septicaemia	4
Still born	9
Senile decay	6
Suicide	1
Syncope	2
Tetanus	2
Tumor of brain	1
Typhoid fever	5
Ulcer	1
Whooping cough	1
Total	162

Contagious Diseases reported—

Scarlet fever	12
Measles	7
Diphtheria	6
Smallpox	1
Total	26

Your obedient servant,

JNO. S. McCLELLAND,
City Clerk.

OTTAWA.

Annual Report of the Medical Health Officer.

To the Chairman and Members of the Board of Health:

Gentlemen: I beg to present the annual report of the Health Department for the year, 31st October, 1902.

For us it has been an eventful year, its close seeing the isolation hospital, for which your Board and my predecessor, Dr. Robillard, have so long contended, almost completed.

When completed, we shall have an institution of which Ottawa may well be proud. The urgent need of this institution is shown in the record of contagious diseases reported, the number of which has been steadily in-

creasing, scarlet fever, especially, showing 200 cases in 1900, 391 in 1901, and 689 in 1902. It is utterly impossible to isolate the cases properly in their homes.

During the year some 309 cases of smallpox occurred, many of these coming to us from outside of city. The fact that only one case died on the island, and that a child, which had been concealed at home until too ill to save it, speaks volumes for the care given the patients by those in charge of the hospital. Fortunately, our city is now practically free from the disease, and by thorough vaccination, we should avoid any recurrence of the trouble this coming year. Certainly our vaccination of last year saved us a tremendous number of cases, and was the chief agent in staying the epidemic.

A review of the mortality table appended shows that 1,156 deaths occurred in Ottawa during the past year, 117 less than in the preceding year. This, at the estimated population of 61,137, gives a rate, per thousand, of 18.9. As many of these deaths are of those from other municipalities, coming to different hospitals and homes for treatment and care, the actual death rate of our own population will be still lower, showing Ottawa to be a naturally healthy spot.

As guardians of the public health, it is our duty to use our every endeavor to make this rate still lower. The three most infectious diseases we have, i. e., scarlet fever, diphtheria, and smallpox, have, during the year, caused but 80 deaths all told, owing to the preventive measures put in force by your Board; while tuberculosis alone has caused 140 deaths, or ⅛ of the total mortality, despite the fact that it is much less contagious than any of these three, yet it has been practically ignored by us.

When we know that it is both a preventable and curable disease, and that it is the cause of so much illness and misery, I consider that this is the most important matter that can engage the attention of your Board during the coming year.

But 28 deaths from diphtheria, as compared with 65 deaths from this source in 1901, is a very pleasing feature of the report. This improvement is, I think, largely due to the more general use of the antitoxin in the treatment of this disease. It is to be hoped that the work of those aiming to develop a similar remedy for scarlet fever may soon be crowned with success.

I trust that this year will see the agitation for a civic scavenging system successful, as each year's growth of the city renders it increasingly urgent.

The frequent complaints received at our office in regard to defective sanitary arrangements in houses, rendered the appointment of a qualified plumber as an inspector a matter of importance, as defective plumbing is always a menace to health.

Now that we are on the eve of entering our new isolation hospital, I think it only due to those who have labored so earnestly in the two old hospitals, that I should place on record my appreciation of the splendid services they have rendered us. During this year, especially, they have been taxed to their utmost, and everything possible has been done by those in charge to contribute to the care and comfort of the patients.

I beg also to present the report of the Sanitary Inspector, which contains some important recommendations on the matters which have come more especially under his notice.

In conclusion, I have much pleasure in testifying to the excellent service rendered by the staff of the Department.

Respectfully submitted.

December 5th, 1902 (Signed) ROBERT LAW, M. D.

Report of Sanitary Inspector.

Disease.	Nov.	Dec.	Jan.	Feb.	Mch.	April.	May.	June	July.	Aug.	Sept.	Oct.	Total.
Abscess	....	1	....	....	....	....	....	....	....	....	....	....	1
Accidental or violent :—													
Burn	....	....	....	....	....	....	1	....	....	....	....	1	2
Cutting throat	....	....	1	....	....	....	....	....	....	....	....	....	1
Drowning	....	2	....	....	....	....	1	3	1	....	1	....	8
Electricity	....	....	1	....	....	....	....	....	....	....	1	....	2
Explosion	....	....	1	....	....	....	....	....	....	....	....	....	1
Fall	....	1	....	1	....	....	....	2	1	2	....	1	8
Poisoning	....	....	....	1	....	1	....	1	....	1	....	1	5
Railroad	....	....	....	1	....	1	....	1	....	1	....	....	4
Shooting	1	....	....	....	1	....	1	....	....	....	....	....	3
Suffocation	1	1	1	2	....	....	....	....	....	....	....	....	5
Alcoholism	....	....	....	....	....	....	....	....	....	1	....	....	1
Anaemia	....	....	1	3	....	1	....	1	....	....	1	1	8
Aneurism	....	....	....	....	....	1	1	....	....	....	1	....	3
Appendicitis	....	....	....	....	3	1	....	....	....	1	....	1	6
Asthma	....	....	1	....	....	1	....	....	....	....	....	....	2
Bronchitis	1	3	2	3	2	1	4	4	....	4	....	2	26
Cerebral abscess	....	....	....	....	1	....	....	1	....	....	....	....	2
Cerebral hemorrhage	1	....	2	3	....	2	....	5	5	2	....	1	21
Cerebral tumor	....	....	....	....	1	....	....	....	....	....	....	....	1
Cirrhosis of liver	....	....	1	1	....	1	....	....	1	....	1	2	7
Convulsions	8	6	6	4	6	3	10	5	5	9	....	3	45
Congenital defect	....	1	1	1	1	2	3	2	3	1	2	1	18
Croup	1	1	....	....	....	....	....	....	....	....	2	....	4
Cystitis	....	....	....	....	....	....	....	....	....	1	....	1	4
Debility infantile	10	9	10	5	9	6	9	9	11	13	9	8	108
Debility senile	5	5	8	6	4	8	14	8	18	3	9	5	93
Dementia	1	....	....	1	....	....	....	....	....	....	....	....	2
Diabetes	....	1	1	....	....	....	....	....	....	....	1	1	4
Diarrhœa	4	....	3	4	7	4	1	6	24	29	9	4	95
Diphtheria	1	2	5	1	6	....	....	2	2	2	1	8	28
Dropsy	1	....	....	....	....	....	1	....	....	....	....	....	2
Dysentery	....	....	....	....	1	....	....	....	....	....	....	....	1
Dyspnœa	3	....	....	....	....	....	....	....	....	1	1	1	6
Eclampsia	1	....	....	....	1	....	1	1	....	1	....	....	5
Ectopic gestation	1	....	....	....	....	....	....	....	....	....	....	....	1
Emesis	....	....	....	....	....	....	....	....	....	1	....	....	1
Embolism	....	....	....	....	2	....	....	....	....	....	1	....	3
Epilepsy	1	....	....	1	....	....	....	....	....	....	....	....	2
Empyema	1	....	....	....	1	....	....	....	....	....	....	....	2
Erysipelas	1	1	....	1	....	....	....	....	....	....	....	....	3
Exophthalmic goitre	....	....	....	....	....	....	1	....	....	....	....	....	1
Gangrene	....	....	2	....	....	....	....	....	....	....	....	....	2
Hemorrhage	....	....	....	....	2	....	....	1	....	2	....	....	5
Heart disease	10	3	10	9	10	2	7	6	3	5	4	6	75
Hernia	....	....	....	....	....	....	....	....	....	1	....	....	1
Influenza	....	....	....	1	....	....	....	....	....	....	....	....	1
Intestinal obstruction	....	....	1	1	....	1	1	....	....	....	1	1	6
Intestinal rupture	....	....	....	....	....	1	....	....	....	....	....	....	1
Jaundice	....	....	....	....	....	....	....	....	....	....	1	....	1
Malignant growth	3	6	2	5	2	5	1	7	3	3	6	2	45
Meningitis	3	5	....	2	4	2	3	....	3	4	4	1	31
Nephritis	1	1	3	2	4	4	....	4	1	....	....	2	22
Obstruction of Oesophagus	....	1	....	....	....	....	....	....	....	....	....	....	1
Paralysis	1	2	2	2	....	1	2	1	....	1	1	....	13
Pemphigus	....	....	....	....	....	....	....	....	....	....	1	....	1
Peritonitis	....	1	....	3	3	4	2	....	....	....	3	4	20
Pneumonia	3	6	11	9	12	9	17	3	5	2	3	3	83
Pneumonhoniosis	....	....	1	....	....	....	....	....	....	....	....	....	1
Premature birth	2	2	2	4	....	3	3	1	3	5	2	3	30
Rachitis	....	....	1	....	....	....	....	....	....	....	....	....	1
Rheumatism	....	....	....	....	1	....	....	....	....	....	....	....	1
Scarlet fever	11	5	3	2	6	5	4	4	2	3	1	4	50
Shock	....	....	1	....	1	1	....	....	....	....	....	....	3
Septicœmia	2	1	2	1	6	2	2	2	1	....	....	....	19
Syphilis	....	....	....	....	....	....	....	1	....	....	....	....	1
Tabes Dorsalis	....	....	1	....	....	....	....	2	....	....	1	1	5

REPORT OF SANITARY INSPECTOR.—*Con.*

Disease.	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Total.
Typhoid	5	....	2	1	1	2	...	4	1	1	4	1	22
Tuberculosis	8	8	8	17	16	24	10	17	4	10	6	12	140
Variola	...	1	1	....	....	....	....	....	....	....	....	....	4
Whooping cough	....	....	....	1	....	....	....	1	1	....	....	1	3
Unknown cause	....	....	1	1	....	....	....	....	....	....	1	....	2
Total	92	76	99	100	117	100	100	105	98	110	77	82	1,156
Exclusive of still births	9	9	6	3	6	9	8	10	5	2	10	8	85

	Protestant annex.		R. C. annex.		Porter's Island.
	Diph.	Scar.	Diph	Scar.	Smallpox.
Admitted	117	153	84	235	309
Discharged	105	142	80	215	304
Died	10	9	4	15	1

Disease.	Number.
Diphtheria	234
Scarlatina	689
Smallpox	309

Reports on other diseases unreliable.

How disposed of.	Number of children.
Admitted during year	227
Placed outside or returned	102
Died during year	90
Remaining in Home, November 1st, 1902	35

The Chairman and Members of the Board of Health:

Gentlemen: I beg to bring under your notice the annual statement, showing the work done by the sanitary section of the Department under your control during the year ending October 31, 1902.

In addition to the ordinary routine work of the section, there have been 1,023 houses disinfected, 374 cards put up on houses were infectious disease had existed, and 322 taken down.

In the ordinary course of duty, I have to report that 7 drains have been tested, 3,100 privy vaults cleaned, and 196 written notices were issued to property owners and tenants. In the great majority of cases, however, verbal notice has sufficed to secure due attention. One summons was issued, and one conviction followed.

Infectious Diseases. The number of houses disinfected was double that of the preceding year, owing to the outbreak of smallpox, scarlet fever, and diphtheria.

Dumping Grounds. The four dumping grounds of the city have received proper attention.

Removal of Garbage. The conveyance of garbage and kitchen swills through the streets of the city has been carried out in compliance with the by-law.

Sundry Trades. The inspection of several trades, which might become offensive through insufficient attention, has been attended to monthly.

Manure. The regulation for the disposal of manure, and the piling of it in yards, should be very clearly defined, and strictly enforced, particularly during the summer months. Covered boxes should be insisted on in the hot season.

Dairies. Having inspected nearly 40 dairies during the months of July and August, I found that most of the proprietors were making the needed repairs and improvements for the better ventilation and accommodation of their cattle.

The water used by the animals was likewise drawn from sources free from any danger of contamination.

Supervision of Ice Cutting. Several complaints were received to the effect that ice was being cut outside the area prescribed by the Board, and the offenders were notified accordingly.

Public Urinals. During certain hours of the day a large proportion of the citizens have business in the central parts of the city, there are many casual visitors, there are several hack stands, where the drivers spend long hours, etc., and yet there is scarcely any public provision for their convenience.

Were some effort made to supply this deficiency, it would gratify both residents and visitors, who would not be under the necessity of violating the rules of public decency.

Drainage. It is greatly to be regretted that, notwithstanding the strenuous and costly efforts made by the civic authorities for the disposal of sewage, that there are so many private tenements without any, or with inadequate drainage; the only effective remedy for the supervision of this dangerous nuisance would be to empower the Engineering Department to inspect such premises, and to order the necessary sewage connections to be made under provisions similar to those of the "Local Improvement Act."

Slaughter Houses. A number of these establishments have been visited during the year. It would be idle to enter into a detailed report of their defects, or to offer suggestions for their improvement; they are all more or less offensive, and detrimental to the public health of the city. There can be but one solution of this much debated question: the erection, in a sufficiently isolated position, of a public abattoir, thoroughly equipped, and efficiently supervised. This system has been introduced in many cities, and has amply justified its adoption.

In conclusion, I have much pleasure in stating that all work entrusted to my assistant has been promptly and carefully performed.

My sincere thanks are due to the Chairman, members, and Medical Health Officer of the Board for their unfailing courtesy and readiness to afford me every assistance in their power.

The whole respectfully submitted.

(Signed) G. O. S. LAFLAMME,
Sanitary Inspector.

Ottawa, October 31st, 1902.

WOODSTOCK.

Report of Medical Health Officer.

To the Mayor and Members of the Council of the City of Woodstock:

Gentlemen,—I beg to submit the following as my report for the year ending November 15th, 1902:

I am pleased to inform you that the health of our citizens has been exceptionally good, and death rate lower than for several years past. We attribute that condition, in a great measure, to the active co-operation of our citizens in sanitary matters, and by the further extension of our sewer and scavenger systems, the health of our citizens would doubtless be much improved and mortality lessened.

We would recommend that the lanes in the rear of the business portions of Dundas street be properly drained and graded, thereby placing them in a sanitary condition.

As milk is largely used as an article of diet, especially for children and in sickness, and as cholera infantum and typhoid fever, etc., can frequently be traced to impure milk, your Board has causd the milk sold by vendors to be thoroughly tested twice during the year. The result showed all up to Government standard.

Herds, byres, approaches, water supply, etc., were properly inspected by Dr. Rudd, veterinarian. His report indicated that our milk vendors were endeavoring to supply a good quality of milk, as herds, appliances, etc., were in good condition.

The water in many of our wells was tested. Some of the wells were so polluted that they were ordered to be cleaned out and filled up with clean earth ; others cleaned out. Would recommend every citizen to use city water thereby insuring them against many ailments.

During the early part of the year measles were very prevalent ; 115 cases were posted. No deaths. A few sporadic cases of scarlet fever, diphtheria, and typhoid fever were reported, some of them being traceable to outside municipalities.

Only one card has been posted during the past four months, viz., a case of scarlet fever, contracted elsewhere, thus indicating that our city is in a comparatively healthy condition.

During the month of July a case of smallpox was reported. Prompt measures were adopted by your Board, and approved of by our Mayor, to prevent the spreading of the same. The Provincial Board was notified of the outbreak, and Dr. Hodgetts, Provincial Health Inspector, visited the patients, and approved of our procedure. The patient made a good recovery. Quarantine was raised in about five weeks. No further outbreak. We would recommend that the Council take into its most serious consideration the erection of an isolation hospital for contagious diseases. We believe it would be the means of saving lives, lessen the spreading of infectious disease, and be a financial gain to our citizens.

Number of deaths during the year, 94, or about 10 per 1,000—a low mortality. Some of those died in the hospital, who belonged to outside municipalities.

Number of deaths from tuberculosis, 8 ; pneumonia, 7 ; typhoid fever, 3 ; scarlet fever, 2 ; measles, 0 ; diphtheria, 2 ; cholera infantum, 2 ; cancer, 5 ; heart disease, 12.

It may be noted that tuberculosis has greatly decreased during the two past years.

All of which is respectfully submitted.

A. McLAY,
Medical Health Officer.

Woodstock, November 30th, 1902.

WINDSOR.

Report of Secretary.

Windsor, December 16th, 1902.

To the Chairman and Members of the Board of Health :

Gentlemen,—Pursuant to the requirements of the Health By-law, I herewith place before you a statement of the deaths registered in this city from January 1st of the current year down to and including the 15th instant, showing the causes of death, and the age and sex of the deceased, as reported by the attending physicians ; and also a statement of the number and nature of the contagious diseases (as the latter term is understood) reported during the same period.

I have the honor to be, gentlemen, your obedient servant.

STEPHEN LUSTED,
Secretary.

Deaths and their Causes. As registered from January 1 to December 15, 1902, inclusive.

DEATHS AND THEIR CAUSES.

As registered from January 1 to December 15, 1902, inclusive.

Disease causing death.	No. of cases.	Age of deceased.	Sex of deceased.
Appendicitis	1	40 years	m
Albuminurea	1	2m	f
Asthenia	1	78	f
Apoplexy	3	91, 86, 70	m, m, m
Angina Pectoris	3	8, 50, 48	f, m, m
Acute Laryngitis	1	5	m
Acute Rheumatism	1	66	m
Abdominal Tumor	1	69	f
Accident	1	14	m
Abscess of Stomach	1	49	f
Broncho-Pneumonia	7	1, 10m, 1, 1, 4, 3 wks, 10	m, m, m, f, m, m, m
Brain Fever	1	10 m.	m
Bronchitis	4	85, 73, 85, 3m	f, m, f, m
Brights' Disease	1	4	f
Cerebral Thrombus	1	70	f
Cyanosis	1	1 day	f
Cancer of Stomach	2	55, 40	m, m,
do Breast	1	59	f
do Liver	1	72	m
do Neck	1	67	m
Cancer	1	72	f
Cystitis	3	74, 61, 79	m, m, m
Congestive Chills	1	69	f
Carcinoma of Bowels	1	50	f
Cerebral Haemorrhage	1	68	f
Congestion of Lungs	1	30	m
Concussion of Brain	1	50	m
Cholera Infantum	3	3m, 1, 1	m, m, f
Carcinoma	1	53	m
Chronic Diarrhœa	1	48	f
Calcareus degeneration of Arteries	1	64	m
Diphtheritic Croup	2	4, 12	m, f
Diphtheria and Scarlet Fever	1	5	m
Diphtheria	1	5	m
Double Pneumonia	1	1	m
Drowned	3	foetus, 12, 25	f, m, m
Died at Birth	1		m
Dysentery	1	44	m
Epilepsy	1	60	m

Disease causing death.	No. of cases.	Age of deceased.	Sex of deceased.
Endocarditis	1	61	m
Fibroid Phthisis	1	51	m
Found dead in bed	1	45	m
Fibroid Tumor	1	50	m
General Anaemia	1	91	m
General Dropsy	1	70	f
Heart Failure	5	53, 56, 56, 2, 64	m, f, m, f, m
Heart Disease	6	66, 53, 77, 50, 80, 30	f, m, f, f, m, m
Heart Disease with Phthisis	1	23	m
Hydrocephalus	1	8m	f
Kidney derangement with Uraemia	1	75	m
Malnutrition	3	3½m, 1, 1	m, f, m
Marasmus	7	3wks, 6m, 3hrs, 4, 6m, 10m	m, f, m, f, m, m, m
Malassimilation	1	8m	f
Meningitis	8	4m, 5m, 4, 1, 3, 16, 4m, 5m	f, f, m, f, m, f, f, f
Measles	3	4m, 8m, 18m	f, m, m
Malignant disease of Rectum	1	61	m
do do Uterus	1	51	f
Mitral disease of Heart	1	39	f
Nephritis	2	12, 44	f, m
Old Age	1	87	f
Paralysis	3	72, 56, 88	f, m, m
Pneumonia	21	6m, 2, 27, 18m, 4, 67, 78, 19, 2, 1, ⅔, 1m, 72, 3, 67, 65, 3, 70, 3, 69, 36, 58	m, m, f, m, m, f, m, m, f, f, f, m. f, m, m, m, m, f, m, m, f
Phthisis	5	41, 44, 16, 23, 20	f f, m, f, f
Pneumonia with Whooping Cough	1	1½	f
Pulmonary Consumption	1	44	f
Pulmonary Phthisis	1	22	m
Poison	1	19	f
Paresis	2	72, 45	m, m
Pernicious Anaemia	1	24	f
Phthisis Tuberculosis	1	32	f
Premature Birth	3		m, f, f
Puerperal Peritonitis	1	20	f
Pelvic Cellulitis	1	21	f
Phthisis Pulmonalis	2	59, 22	m, f
Stillborn	6		m, f, m, f, f, m
Senile Decay	3	85, 75, 76	m, f, f
Scarlet Fever	1	19	f
Senile Gangrene	2	74, 86	f, m
Softening of Brain	1	84	f
Streptococcic Infection	1	29	f
Sarcoma of Neck	1	49	f
Strangulation	1	10m	f
Tumor in Brain	1	48	m
Tuberculosis	3	39, 25, 35	f, f, m
Tubercular Meningitis	1	6	m
Typhoid Fever	2	6, 26	m, m
Typho-Pneumonia	1	26	m
Tonsilitis	1	3m	f
Tuberculosis (Pulmonary)	1	21	m
Uraemia	2	61, 73	m, m
Uramic Poisoning	1	74	m
Valvular disease of Heart	3	51, 84, 26	f, f, f
Whooping Cough with Congestion of Lungs	1	10m	m
Whooping Cough	3	4m, 16m, 16	m, m, f
Whooping Cough, with Pneumonia	2	10m, 18m	m, f
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STATEMENT OF CONTAGIOUS DISEASES.

Diseases.	No. of Cases.	Age of Patient.	Sex of Patient.
Scarlet Fever	27	7, 12, 10, 5, 2, 4, 8, 3, 12, 4, 1, 5, 9, 10, 7, 5, 12, 6, 8, 10, 15, 8, 7, 14, 3	f, m, f, m, m, f, m, m, m f, f, m, f, m. m, m, m, m, m, f, f, m, m. f, f, m
Scarlet Fever and Diphtheria	1	6	m
Scarlatina	1	14	f
Diphtheria	24	4, 5, 4, 4, 4, 6, 12, 11, 21, 4, 6, 20, 8, 3, 6, 13, 12, 11, 8, 8, 6, 8, 12	m, m, f, --, m, f, m, m, m, f, f, f, m, —, f, m, m, f, m, m, m. m, f
Diphtheritic Scarlet Fever	3	4, 2½, 6 m.	m, f, m
Smallpox	7	25, 33, 20, 23, 30, 20, 25	f, m, m, m, m, f, m

Note.—The first letter, indicating sex, in each case belongs to the age first stated after each separate disease, the second letter to the age secondly stated, and so on.

Statement of Contagious Diseases. In addition to the above, in response to a request made by the Medical Health Officer for a report of the typhoid fever cases occurring since August 1st of this year, twenty-six cases of that disease were reported.

Report of Medical Health Officer.

Windsor, December 15th, 1902.

To the Board of Health, Windsor :

Gentlemen,—I have the honor to report to you as regards the general health of the people of Windsor, as follows :

During the present year there have been recorded 27 cases of diphtheria, with 4 deaths ; 29 cases of scarlet fever, with 1 death ; 7 cases of smallpox, with no deaths ; 26 cases of typhoid fever, with 2 deaths. The mortality for each class has been very low, the number of deaths from all causes being a mortality of 14.61 per thousand, which compares favorably with any other city in the Province.

In regard to the cases of smallpox, each was directly traced to Detroit, and considering the large amount of money expended in caring for the patients, and keeping in quarantine those exposed (a sum amounting to about $700), I would again urge you to use every effort to procure assistance from the Dominion authorities. We are certainly protecting the people back of us, and when other places receive support in the way of quarantine stations and officers, there is no good reason why an important port like Windsor should not receive the same.

The arrangements for the removal of garbage have been well and faithfully carried out by the contractor, but there remains the fact that there is room for improvement by having a more systematic arrangement in carrying out the work. I think that this could be obtained by having the work placed under the control of the Board of Works. This is a suggestion I would like you to discuss carefully, and I hope that it will meet with your approval. Although it does not come under the duties of your Board, I would suggest that convenient boxes be placed about the centre of the city for the reception of waste paper, etc. They would help materially in keeping the streets in a better condition, and the expense would amount to very little.

I wish to bring another matter before you, and that is the fact that Windsor has no hospital for contagious diseases, such as diphtheria and scarlet fever. The Hotel Dieu is unable to care for them, and the result is that such cases have to be treated at private residences, where in many cases facilities are entirely wanting, and other persons are necessarily exposed. I would ask that you take up the matter with the city council, and urge upon them the necessity of such an institution. I know that it would meet with the approval of the public, and particularly with the medical profession.

I thank you, gentlemen, for the hearty manner in which you have helped me during the year, and desire to compliment your Inspector, Mr. Greive, for his faithful and prompt attention in all cases when his services were required.

All of which is respectfully submitted.

Yours truly,

(Signed) J. A. ASHBAUGH,
Medical Health Officer.

HAMILTON

Report of Medical Health Officer.

Hamilton, December 1st, 1902.

To the Chairman and Members of the Local Board of Health :

Gentlemen,—I have the honor to herewith submit to you a report of the sanitary condition of the city, and the work of the Health Department, for the year ending October 31st, 1902:

There were 691 cases of infectious disease of all classes reported during the year. Of these 106 were diphtheria, with 24 deaths, a mortality of 22 per cent., and 44 per thousand of population. Compared with other cities, this is not a high death rate, but it is a great annual loss of life from a preventable disease. Last year there were 25 deaths. Quarantine is carried on as far as possible by this department. The difficulties met in dealing with this disease will be appreciated if you consider the following conclusions by the most eminent bacteriologists: (a) Diphtheria bacilli are found in the throats of 3 to 7 per cent. of healthy persons who have been exposed to diphtheria, directly or indirectly ; (b) such healthy individuals do not develop diphtheria as a rule, because of their actual immunity, or what is known as "antitoxic condition of their systems"; (c) in the throats of about 90 per cent. of such healthy individuals the bacilli found are virulent, or the means by which the disease is carried from place to place. When the bacilli are transferred to the throats of susceptible persons, they readily produce the disease. (d) The diphtheria bacillus usually remains in the throat of persons having had the disease for several weeks following complete recovery from illness. There is the greatest danger of transmission and infection just as long as any germs remain present. Treatment of the throat should continue until the organism has disappeared. (e) There is no clinical difference by which differential diagnosis may be made : in the pictures of throat lesions produced by (1) streptococcus pyogenes, an organism found in erysipelas and some cases of pneumonia and several other diseases ; (2) the oidium albicans (the fungus which produces thrush); (3) true diphtheria caused by Klebs-Loeffler bacillus. The only positive means differentiating is by a bacteriological examination. As regards treatment, antitoxin is curative, if properly used in the early stages of Klebs-Loeffler (true diphtheria). The statistics indicate that the

death rate from diphtheria decreases proportionate to the early administration of antitoxin. Did public opinion give us the same support in the control of diphtheria as smallpox, it would be no more prevalent. This would mean isolation in hospital of even the mildest cases; quarantining suspects and those who have been exposed, and keeping both at the public expense, until they could go about with safety. Leaving out of account all the suffering and pain, which is beyond any estimate, it would pay any municipality to do so from a commercial standpoint. Economists estimate a life to be worth one thousand dollars to the State. If this basis be accepted, this city lost last year one hundred and forty-nine thousand dollars from death by infectious disease (including tuberculosis). The expense in treatment, nursing, and loss of wages, etc., would amount to as much more, making about three hundred thousand dollars in all. Surely it is necessary to take some effectual means of controlling these diseases.

There were 64 cases of typhoid fever reported, with seven deaths, a mortality of 13 per 100,000 population. This is low, and places the water, ice and milk supply of the city in a good position in comparison with other cities as regards freedom from typhoid. Of the 64 cases reported, 16 were found on investigation to have been infected outside of the city, most while in the country, doubtless from using impure well water. Nine in one neighborhood were traced to a common milk supply. Upon investigation this dairy was condemned, and the license cancelled.

During the year five cases of smallpox were reported. Owing to the prompt measures taken by the Board and its officials, in no instance did the disease spread beyond the first case, each of which was imported. These cases were handled at the cost of $905, less than $200 a case. For smallpox, this comparatively shows a very economic treatment. The cases, with the exception of one, were quarantined in the house where they took sick; this happened to be effectual, but it is a poor makeshift, and will not always be successful; moreover, it cannot always be adopted. The Board assumes a heavy responsibility in so doing. The year closed without a proper isolation hospital, or even a site. Four of these cases had never been successfully vaccinated, and one not since childhood, and in this case the attack was mild. With the exception of about 50 persons, who were exposed to infection from these cases, I have not done any vaccinating during the year, no one having applied, and I believe there has been very little done in the city. Judging by the past experience, unless smallpox keeps recurring every year, it is probable that some years will elapse without vaccination to any extent, until another outbreak, when there will be a rush. Under such circumstances this delicate little operation is hurriedly and imperfectly done, with the result of either imperfect inoculation or an infected arm. Years ago, when the ravages of smallpox were more evident than they are now, vaccination was almost always done in infancy. Children were taken to the vaccinator as religiously as to be baptized. Every child should be vaccinated before reaching school age. The operation not only gives less annoyance then, but it will be better done, and, moreover, there will be no loss of time from school or occupation. A systematic method of accomplishing this is required.

The other infectious diseases reported are: Scarlet fever, 97 cases, with three deaths; chickenpox, 74 cases; mumps, 11 cases, and no deaths; measles, 222 cases, with 2 deaths; whooping cough, 112 cases, and 13 deaths, all in infants. This disease was very prevalent last winter, and many cases were never reported, but the mortality shows it is not a trifling disease. It is a

difficult disease to keep from spreading, as the attack often lasts three months or more, during which time the patient is infectious. Again, patients are advised by physicians to keep in the open air, as it is better for their convalescence, but it is not for their playmates. Three months is a long time to be kept from school, and to avoid this, parents, when they do not have a physician, conceal the trouble, and allow children to go to school before free from infection. All pupils absent from school a week should be required to produce a certificate from a physician that they are free from infection. This measure would not only aid in preventing the spread of these milder infectious diseases, but would indirectly secure a more regular attendance.

Seventy-six cases of diphtheria, 18 of scarlet fever, and 32 of typhoid fever were treated at the City Hospital during the year. For diphtheria this was 72 per cent. of all reported cases. The hospital is being taken advantage of more every year for the treatment of this disease, and that is as it should be. In houses of one story, of which there are so many in the city, it is impossible to satisfactorily isolate cases of diphtheria and scarlet fever. To remove them to the hospital, not only removes the source of infection from the house, but patients can be better treated there.

Mortuary Statistics. Excluding 47 still births, which are not counted in mortuary statistics as deaths or births, 744 deaths have been recorded at the Registrar's office during the past twelve months. The Assessor's enumerations gives us a population of 54,030, thus showing a death rate of 13.7 per thousand. This is a low rate, and indicates good sanitary conditions. The death rate of last year was 14.5 per thousand, showing a decrease of nearly one per thousand. There was also less sickness of a general non-fatal character than usual.

Of 744 deaths, 366 were males and 378 were females, nearly an even number.

There were 137 deaths under one year of age, 18½ per cent. of the total mortality; premature births, of which there were 25, unsanitary surroundings, and improper food are the chief factors in the causation of infant mortality. There were 20 deaths from cholera infantum and other diarrhoeal diseases. One hundred and sixty five persons reached three score years and ten, over 22 per cent. Sixty six lived to be 80 years of age, and nine over 90, the eldest being 109 at the time of death. Fourteen deaths were recorded of inmates of the House of Refuge, 10 at the Infants' Home, 3 at St. Mary's Orphanage Asylum, 3 at Aged Women's Home, 1 at City Jail (a non-resident, from tuberculosis). Twenty-five deaths occurred from accident, including three from gas poisoning. Among the general causes of death were 45 from cancer, 85 from diseases of the heart, mostly in the aged; 84 from phthisis, and 21 from other forms of tuberculosis, making 105 from this disease.

An important measure to lessen the ravages of tuberculosis was taken when the City Council, on the recommendation of the Board of Health, passed the following by-law: "Every medical practitioner, practising within the municipality, shall report to the Medical Health Officer upon one of the forms supplied by him for the purpose, every case of pulmonary tuberculosis which he attends, or is called upon to visit in the City of Hamilton; such report to be made within one week after he knows that his patient has such disease; and shall also, if the patient dies from such disease, report the death to the Medical Health Officer within twenty-four hours after it takes place.

When cases are notified, what sanitary measures are proposed for the prevention of the disease. I would recommend, (1) Inspection of the pre

mises, preferably by a medical officer, giving personal instruction to patients as to proper disposal of sputum, at home, when at work, and when travelling, and as to the cleansing and disinfection of the house at frequent intervals, and leaving printed information of a non-alarmist character in regard to the disease, and the method of its extension. He should attend to any indirect cause of the disease, and which would be conducive to its spread; for example, the lighting, ventilation, and dampness of houses, milk supply, etc.

Information should be gained for investigation purposes, which, though not useful to a sufferer, enables lines of new action to be worked out. A schedule should be prepared to tabulate inquiry as to duration of illness, the period of stay in the house, the amount of isolation (if any) carried out, the sanitary condition of the house, including overcrowding, if it exists; the family history, in regard to tuberculosis; the place of work, the previous medical history of the patient. Effort should be made to discover the source of infection, by questioning the patient as to the existence of consumption in relatives, companions, or work-fellows. This investigation should take place at the patient's home; the office, workshop, or factory should also be visited, but in a general way, without any reference to the special case, care being taken to remove any sanitary defects, uncleanliness, or dust, nuisance.

2. Monthly visits by inspectors, to see that preventive measures are being carried out.

3. The disinfection and renovation of all premises vacated by death of consumptives. When required and practical, the employment of the same measures during life. Attending physicians should be required to notify the health department when a patient changes his abode, unless they can certify there had been no recent infectious discharges, rendering disinfection and cleansing necessary, before the vacated rooms are occupied by a new tenant. I believe more in renovation, such as kalsomining, lime washing of ceilings, repapering, and washing floors and furniture with plenty of soap and water, rather than depending wholly on any means of disinfection.

4. Literature having no official heading should be distributed to physicians, who would give it to patients where advisable.

5. The removal of the patient.

(a) Incipient Cases: Among the poor encouragement should be given them to take advantage of the arrangements made by the City Council for treatment at the Gravenhurst Sanitarium. Every case cured diminishes the amount of infection, and will be a valuable educational factor in the community. Those who are not cured will have learned, in a way that can be best taught in institutions, how to take proper care of their sputum.

(b) For Advanced Cases: Unable to work, and willing to go, a hospital or home should be provided, either in a separate ward of the general hospital, or, better, in a properly equipped building, in the country, adjacent to the city. It is advocated that temporary treatment should be offered to a rapid succession of phthisical patients in municipal hospitals, suitable for patients who are living under unfavorable conditions at home, or who are a source of risk to his family, and to those with whom he works. The cure of these patients is not anticipated, but in the interest of the public health, it is intended to care for them, for a short period of time, a month or two, with the following objects in view: (1) The patient himself will be improved, and enabled to start afresh, with better prospects of recovery. (2) While in the municipal sanatorium, his house will be cleansed and disinfected, and his relatives will be freed from uninterrupted exposure. (3) The patient, when sent home, will have been taught to so manage his expectoration that he will be no longer a source of risk to his family, and to those with whom he works.

I would recommend that special forms, which can be sealed, differing in color and shape from those used in the case of contagious diseases, be supplied physicians, for reporting tuberculosis, and these are not to be opened by any one in the health office, except the Medical Health Officer, and the register kept for future reference must be kept under his own personal supervision. It is also my opinion that no action should be taken, except registration, where physicians instruct the patient and the family in the proper method of disposal of sputum, in other means, to prevent infection and will distribute literature to the family, which will be supplied him. I would also require him to notify the Health Officer of a change of address, so that the apartments can be renovated and disinfected. In the report required from physicians, I would have this question: Do you wish an inspector to visit the premises, and instruct the family regarding prophylaxis? Answer, Yes or No. Cases would not be visited by an inspector from the health office except on the request of the family physician, the understanding being, if he do not request it, he will adopt and supervise the necessary measures himself. There is a certain class of people over whom a physician could have no control: the sanitary authority should here be called to assist. Among the poor, the class in which tuberculosis is most frequent, often the necessary means of preventing the spread of infection are absent, and the municipality should be called upon to supply them. In some cities of England, the consumptive poor are gratuitously supplied with sputum bottles and Japanese handkerchiefs, and it has been the experience there that they readily avail themselves of these means of prevention. Sanitary measures are mostly needed among the poor, where bad ventilation and over-crowding exists. Judicious discrimination should be used in carrying out regulations adopted for prevention of tuberculosis. No reasonable sanitary officer would expect to put into force regulations requiring the notification of tuberculosis with the same conditions and in the same way that a similar one in regard to smallpox or diphtheria would be enforced. The process of the enforcement of such a law must be developmental, and it must be distinctly understood, and strongly and constantly emphasized, that tuberculosis is a different kind of disease from smallpox and scarlet fever, or any of the highly contagious diseases.

The water and ice supplied the city have been several times analyzed, during the year, at the laboratory of the Provincial Board of Health, and found to be of good quality.

Four hundred and five samples of milk were tested during the year. The average percentage of butter fat of all samples collected was 4.05, showing that there is no ground for complaint, as to the richness of the milk, generally. In the early part of the year tests were made for coloring matter put in milk, for the purpose of giving it an artificial appearance of richness. Three milkmen were prosecuted and fined; since which time, every sample collected has been tested for "annatto," but none found.

The scavenger system continues to give fair satisfaction, judging by the scarcity of complaints. These have been investigated promptly by the inspectors, and usually the trouble has arisen through a misunderstanding as to the proper time and day of call by the scavengers. In some cases, receptacles have been too dilapidated for handling, and in others too large and heavy. One hundred pounds should be a limit for a scavenger to be asked to lift; that must get very heavy toward the end of a long day. The bi-weekly collection during the summer months was taken more advantage of by the citizens than last year. The streets, lanes, and alleys have been kept

cleaner this year than usual. Street dust is an important factor in the causation of diseases of the respiratory tract.

I append a report of work done by the Sanitary Inspectors, and tables and maps, showing the distribution of infectious diseases. You will see that they have occurred in an isolated way throughout the city. I would also call our attention to the small number of instances in which there has occurred more than one case in the same house.

All nuisances complained of during the year have been promptly investigated and attended to by the inspectors. I wish to commend them for good work in discharge of their several duties.

Respectfully submitted.

WALTER F. LANGRILL,
Medical Health Officer.

Report of Sanitary Inspector.

Hamilton, 8th November, 1902.

To Dr. W. F. Langrill, Medical Health Officer :

Sir,—Below please find synopsis of work done by your three Inspectors from the 1st day of November, 1901, to the 31st day of October, 1902, inclusive.

Yours respectfully,
(Signed) L. A. MacDONALD,
Inspector.

Number of inspections made	5,747
Number of privy vaults notified to be cleaned	438
Number of privy vaults, permits for new ones	1
Number of privy vaults, issued to contractors to clean	1,020
Number of privy vaults abolished	91
Number of cesspools notified and cleaned by contractors	25
Number of cesspools abolished	19
Number of dry earth closets to clean	36
Number of sewer connections to make	114
Number of sewer connections made	71
Number of sewer connections found defective	87
Number of stagnant water, to abolish	13
Number of dirty premises to clean	42
Number of other nuisances to abate	475
Number of old wells to fill in	5
Number of houses placarded	142
Number of houses fumigated	246
Number of milk samples collected and tested	405
Number of licenses issued	183
Number of complaints unfounded	1

Work Done by Your Scavengers.

Number of team loads of garbage and refuse collected	10,662

Burnt at Crematory.

Number of dogs	451
Number of cats	305
Number of fowl	48
Number of fish, barrels and boxes	27
Number of goats	1
Number of loads of used rags, etc., from City Hospital	85
Number of loads of bedding from infected houses	10
Number of rabbits	2

Summary of Infectious Diseases from Nov. 1, 1901 to Nov. 1, 1902.

Disease.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Total.
Scarlet Fever.	14	14	16	19	10	5	4	6	0	1	2	6	97
Diphtheria.	11	21	13	9	16	5	4	3	5	1	8	10	106
Typhoid Fever	3	2	1	1	2	1	0	3	2	17	29	3	64
Chickenpox ..	8	17	0	11	16	8	7	3	2	0	0	2	74
Smallpox.....	.	.....	2	...	1	1	1	....	....	...	.	..	5
Measles	1	5	7	8	28	85	52	35	1	1	1	0	222
Whooping Cough	0	7	36	41	12	9	3	0	3	1	0	0	112
Mumps	....		1		1	2	2	1	....	....	3	1	11

Table showing Deaths from Infectious Diseases by Months.

Diseases.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug	Sept.	Oct.	Total.
Diphtheria ..	4	3	3	3	3	1	2	1	1	1	1	1	24
Scarlet Fever.	.	.	...	1	2	...	..	.		.	....	.	3
Typhoid	2	1	...	.....	....	..	...	...	..	2	1	1	7
Pulmonary Tuberculosis	3	9	4	10	8	8	8	8	2	9	9	6	84
Whooping Cough	1	.....	1	1	3	1	...	5	...	1	...	.	13
Measles	.	.....	.....	.....	...		.	1	1		.		2

Summary of work done by Inspectors in Quarantine and Disinfection.

	Diphtheria.	Scarlet Fever.	Smallpox.	Tuberculosis.	Chickenpox.	Typhoid Fever.	Whooping Cough.	Total.
Houses placarded...	75	67	2	0	0	0	0	144
Placards removed...	75	67	2	0	0	0	0	144
Houses disinfected..	103	84	13	20	7	0	1	228
Inspections made while under quarantine.....	120	147	16	0	4	30	1	318
Defects in sanitation found	8	0	1	1	0	8	0	18

TABLES COMPILED FROM THE ANNUAL REPORTS OF LOCAL BOARDS OF HEALTH.

Cases and Deaths from Contagious Diseases by Municipalities for year 1902.

Cities.	Small-pox.		Scar-latina.		Diph-theria.		Ty-phoid.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Belleville					2		5	
Brantford	2		37		72	12	43	4
Chatham	43		42	1	7	3	55	5
Hamilton	5		97	3	106	24	64	7
Kingston			31		63	3	17	4
London						20	3	3
Ottawa	300	2	689	50	230	28		22
Stratford			11		9		29	1
St. Thomas			24		4	1		
St. Catharines	1		12		6	1	32	5
Toronto	28		701	88	893	115	130	25
Windsor	5		30	3	17	3	26	2
Woodstock	2			2		2		3
Guelph			24		14	2	16	
Towns and Villages.								
Acton	5		12					
Alvinston			7					
Arkona			2					
Aylmer								
Aurora								
Athens								
Alliston						2		
Arnprior			3		4		3	2
Arthur								
Ashburnham			6		15	6	1	
Alexandria	3		3		30	5	3	
Ailsa Craig	1				3	1		
Bracebridge			10	1	6		1	1
Beamsville					2	1		
Barrie	1		5		2	1		4
Berlin	2		21	1	12	2	4	4
Bath					3	1		
Bayfield							2	
Beaverton								
Beeton								
Belle River					20	2		
Bolton								
Brampton			11		7	2		
Brighton								
Brockville	25		30		49	3	29	3
Bowmanville			2	1	20	2	2	
Bothwell								
Brussels					7	3	4	1
Burk's Falls							30	1
Burlington								
Bridgeburg								
Blyth								
Bobcaygeon							8	
Campbellford			1		2			
Cobden								
Creemore			1					
Cobourg			4		1	1	4	1
Cayuga			1		1		1	
Caledonia								
Cannington					2		2	1
Chesterville								
Clinton			10				4	
Cornwall	19				5	1	20	4
Colborne								1
Carleton Place	7		2					1
Chesley			24	2				
Chapleau			3					
Chippawa								
Collingwood			1	1	4	4	2	2

Towns and Villages.	Small-pox.		Scar-latina.		Diph-theria.		Ty-phoid	
	Cases.	Deaths.	Cases.	Deaths.	Cases	Deaths.	Cases.	Deaths.
Copper Cliff	12				9			
Clifford			15				3	
Delhi								
Dresden			7	1			4	
Durham			4		4	1	2	
Dunnville							1	1
Dundalk								
Deseronto	1				1	1		
Drayton								
Dutton	2							
Eganville								
Elora								
Erin			2		5			
East Toronto								
Elmira			3				2	
Embro					7			
Exeter					2	1		
Forest								
Fort Erie							3	
Fort William			70	13			50	4
Fergus			1					
Galt	1		5		45		19	1
Garden Island								
Gore Bay								
Grand Valley					1			
Gananoque					1	1		1
Georgetown								
Hageraville			1					
Hanover					6	1		
Hastings								
Hawkesbury	48							1
Hespeler								
Hensall								
Hintonburgh	30		87	7	5	1		
Holland Landing								
Huntsville					2			
Harriston							2	
Havelock								
Iroquois								
Kincardine							1	
Kingsville								
Kemptville								
Lancaster								
Leamington					3		9	
Little Current							4	1
L'Orignal	12				3	1		
Listowel					35	2	1	
Lakefield			7	1				
Lindsay			31	10	8		10	
Lucknow								
Mattawa	2		10				8	1
Millbrook			6				7	1
Milton			8					
Mitchell								
Milverton								
Mount Forest			4	1	5	1	6	
Madoc								
Markham					1	1		
Meaford								
Merrickville					4		1	
Merritton								
Morrisburg								
Markdale					1	1		
Newcast'e					4			
Niagara Falls							3	
North Toronto					2		2	
Norwood					10			

Cases and Deaths from Contagious Diseases by Municipalities.—*Continued.*

Towns and Villages.—*Con.*	Small-pox.		Scar-latina.		Diph-theria.		Ty-phoid.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Norwich	34		1				13	1
New Hamburg								
Newburgh			13				1	
Newmarket			3	1			1	1
Napanee			3		7			
Niagara			2				6	
North Bay	1			7				
Oakville								
Orangeville								
Oshawa			12		12	2		3
Ottawa, East	2		3		5	1		
Owen Sound			2		2		46	3
Omemee								
Parry Sound	26		12		6		3	
Peterborough	2		100	15	22	5		
Preston							1	1
Point Edward	2	1						
Parkhill			1					
Paisley	3		3		2			
Palmerston								
Portsmouth							1	1
Petrolia			10	1			12	1
Prescott			38	2			7	
Pt. Colborne								
Pt. Dalhousie								
Pt. Dover			4				3	
Pt. Elgin			1				3	
Pt Perry							1	
Pt. Rowan								
Pt. Stanley			27	1				
Pt. Arthur	1		30		41	6	209	11
Pt. Hope			2		25	2	6	2
Perth	20							1
Paris								
Pt. Carling								
Pembroke	30		12		4		5	1
Renfrew								
Ridgetown								
Richmond Hill							2	1
Rockland	25							
Sandwich					1			
Shelbourne	1		4				1	
Seaforth							3	
Simcoe	1				1			
Smith's Falls	10		2				3	
Springfield					3		6	1
Stouffville			2					
Strathroy								
Streetsville								
Sturgeon Point								
Sundridge	1							
Southampton								
Sault St Marie	4		12	2	3			
Sarnia	8		1		1			13
Stirling								
Sturgeon Falls							4	2
Sutton							1	
St. Mary's			6					
Sudbury	19		9		6		12	
Tiverton								
Toronto Jct			6	2	21	3		3
Tara								
Teeswater			1				2	
Thedford					1	1		
Thessalon							12	
Thorold			1		7	1	3	
Tilsonburg					1		12	
Tilbury	1				2	1		
Tweed			2		1			
Thamesville	1							
Thornbury								
Tottenham					2	1		
Uxbridge							6	6
Vankleek Hill	1							
Vienna								
Walkerton	3						8	
Walkerville			6		5	1	1	1
Waterdown							2	
Wellington								
Whitby			2		2			
Winchester	1		1					
Woodbridge								
Woodville					1			
Wroxeter							1	
Welland			8		4			
Wiarton			1		2			
Waterford								
Weston								
Wingham			2		15	5		
Wyoming								
Waterloo	4		15		1		4	1
Wardsville							1	
Townships.								
Adelaide			2					
Admaston								
Alfred	35		75	6	22		6	1
Alnwick			2					
Ameliasburgh								
Amherst Island								
Ancaster			3	1				
Arran								
Arthur			3		2	1		
Ashfield								
Assiginack	19						1	
Athol								
Augusta			2					
Anderdon	3		7		3	1	1	1
Albion								
Anson & Hindon					8			
Albermarle								
Armour								1
Aldborough								
Atwood					35	3		
Alice & Fraser	32							
Barton							2	
Bastard & B								
Bathurst	9	1						
Bangor, etc	3		1	1				
Bagot & B					1	1		
Bedford	8							
Bentinck			2		2	2		
Bexley								
Biddulph								
Bertie			2					
Beverly							3	
Binbrook	19							
Blandford			5					
Blanshard			5		1		2	
Blenheim			4	1	4		12	
Beckwith							1	1
Blind River								
Bondfield	3							

Cases and Deaths from Contagious Diseases by Municipalities for 1902. *Continued.*

Town-ships.	Small-pox.		Scarla-tina.		Diph-theria.		Ty-phoid.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Bosanquet			4					
Brock			8	1	4	1	12	1
Brant	4		7		3			
Brantford			2		10	1	2	2
Brighton			20				15	
Burleigh & A.					7	2		
Brooke	1							
Burgess, N.								
Burford	1		2		5		2	
Buck								
Brudenell & L.	2							
Bruce	8			1			12	1
Brunel			2		1			
Bayham					1		8	
Belmont & M								
Billings								
Brougham								
Caldwell			6					
Caledon			12		8			
Caledonia							1	1
Cambridge								
Camden, W.	7							
Cameron								
Canborough			2		1		7	1
Caistor	8						12	
Clarence	1						1	1
Caradoc	23				2		2	
Cardiff								
Carrick	4		1	1	1		3	
Carling								
Carlow			2					
Calvin								
Cavan			6	1	3			
Cayuga, N							1	1
Chaffey							1	1
Chapman			21				2	
Chapple								
Charlottville								
Chandos								
Charlottenburg	94	1	4		1		2	
Christie					2	1		
Clarke					1			
Colchester, S.			10		20	2	5	
Cornwall	7							
Colborne								
Crowland			5		1			
Culross								
Cumberland	10		10		4		3	
Camden, E.	3		6	1	3		4	
Cartwright				1				
Carden								
Cayuga, S								
Chingacousy								
Clarendon & M.					2			
Colchester, N.					2			
Cockburn Is'd								
Carnarvon								
Crosby, N								
Dereham	21				2	1		
Dummer			1	1	3	3		
Dalhousie & N.S								
Dalton								
Darling								
Darlington			7				5	4
Dawn							1	
Dav. Gladstone, etc								

Townships.	Small-pox.		Scarla-tina.		Diph-theria.		Ty-phoid.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Delaware			6				1	
Denbigh A. & A.				2		2		
Derby								
Dorchester, N.			16		1		3	
Douro								
Draper	8							
Drummond	6							
Dover	390	2	4				1	1
Dumfries, N.			3		6		2	
Dunn								
Dun fries, S					6		1	1
Dymond			13	1				
Dungannon								
Dysart			3		21	4	2	
Dorchester, S.								
Downie							2	
Easthope, S								
Edwardsburg						2		
Egremont	2				6	1		
Elma	1				4	1	30	1
Elderslee								
Ellice								
Elmsley, S.	3							
Etobicoke	1		9	1	1		6	2
Emily			8		8	2		
Enniskillen								
Ernesttown	1		1		5		5	
Erin							2	
Essa								
Esquesing	3		3		1		1	
Euphrasia	1							
Eramosa			1		1			
Eastnor								
Elmsley, N	2							
Elzevir			1					
Euphemia								
Ekfrid	11		3		3	1		
Emo	2							
Ennismore			12		5	1		
Elizabethtown					1		2	
Fredericksburg, N					2			
Fredericksburg, S								
Fullerton							2	
Finch	43							
Fenelon								
Fitzroy	6		4					
Flamboro, E	6				1	1		
Flamboro, W								1
Flose	3				3	1		
Faraday								
Ferris	20							
Foley	2		1					
Gainsboro			20					
Galway & C								
Garafraxa, W								
Georgina								
Glanford								
Gloucester	59		25		40	5		
Gosfield, S							1	
Glenelg							1	
Grantham			1	1				
Grattan					10	1		
Grey								
Gosfield, N					2	1	3	
Gower, N	3		3		1		1	

Cases and Deaths from Contagious Diseases by Municipalities for 1902. – *Continued.*

Townships.	Small-pox.		Scarla-tina.		Diph-theria.		Ty-phoid	
	Cases.	Deaths	Cases.	Deaths.	Cases	Deaths.	Cases.	Deaths.
Goulbourne	19	..	6	1	..	.	1	1
Grimsby, N	..	..	..	..	..	.	2	.
Grimsby, S	..	..	..	..	..	..	..	..
Guelph	..	..	3	..	1	..	1	.
Goderich	..	..	..	..	..	..	..	..
Gwillimbury, W	..	..	..	1	..	..	..	..
Gwillimbury, E.	..	..	1	..	..	.	1	.
Gower, S	..	..	..	..	..	..	..	..
Gwillimbury, N.	..	..	..	..	..	..	..	.
Gordon	..	..	..	..	..	..	..	.
Greenock	3	..	5	2	4	.	1	1
Garafraxa, E	1	..	..	..	..	..	..	..
Griffith & M	..	..	..	..	10	4	..	..
Glamorgan	..	..	..	..	..	..	..	..
Haldimand	..	..	13	..	5	2	5	.
Hagerman	..	..	1	..	..	..	..	..
Hay	..	..	..	..	1	..	..	..
Harvey	..	..	..	..	9	1	..	..
Harwich	10	..	..	..	..	..	..	..
Hawkesbury, E.	27	..	14	..	..	.	2	.
Head, Clara & M	..	..	..	..	..	..	..	.
Hilton	..	..	..	..	..	..	..	..
Hillier	..	..	..	..	..	2	..	..
Himsworth, S	2	..	1	..	1	.	2	.
Horton	1	..	..	..	1	..	..	..
Howland	..	..	..	..	..	..	..	..
Humberston	..	..	..	..	..	..	..	..
Hullett	..	..	..	..	..	..	..	..
Huntingdon	..	..	..	..	..	..	..	.
Huron	..	..	..	..	..	..	..	.
Hamilton	..	..	..	..	5	2	4	.
Hawkesbury, W	1	..	..	..	..	..	..	..
Howick	..	..	..	1	..	.	..	.
Hallam	..	..	..	..	..	..	..	..
Himsworth, N	1	..	..	..	1	.	..	..
Hungerford	..	..	..	..	6	1	3	.
Hinchinbrook	1	..	..	..	..	..	1	1
Hinsworth, S	1	..	..	..	..	..	1	.
Hope	..	..	10	..	2	1	4	1
Houghton	..	..	2	2	..	..	..	..
Humphrey	7	..	..	..	..	..	3	1
Hibbard	..	..	1	..	..	..	..	..
Innisfil	..	..	..	..	..	..	..	..
Joly	..	..	..	..	..	..	..	..
Jocelyn	..	..	..	..	..	..	..	..
Johnson & T	2	..	..	..	..	..	..	..
Keewatin	1	..	12	..	..	..	..	..
Kaladar, etc	..	..	..	..	..	..	..	..
Keppel	..	..	..	..	..	..	..	..
King	3	..	..	..	..	..	..	..
Kingston	..	..	..	..	..	..	..	..
Kincardine	32	..	..	..	..	..	2	.
Kinloss	10	..	..	..	7	..	..	..
Kenyon	15	..	12	..	28	..	..	..
Kennebec	..	..	1	1	..	..	..	..
Kitley	..	..	..	..	..	..	..	..
Lavant	..	..	..	..	..	..	..	..
Laxton, D. & L.	..	..	..	..	..	..	..	..
Leeds & Lans. F	..	..	..	..	..	..	..	..
Logan	2	..	..	..	..	..	..	..
Lindsay, & St. Ed	..	..	..	..	..	..	..	..
Limerick	..	..	..	..	..	..	..	..
Louth	..	..	..	..	..	..	12	3
Luther, E	..	..	..	..	..	..	..	..
Luther, W	..	..	..	..	2	..	..	..
London	..	..	..	..	1	1	..	..
Lanark	..	..	..	..	..	..	..	..

Townships.	Small pox.		Scarla-tina.		Diph-theria.		Ty-phoid.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Lancaster	9	..	1	.	..	.	..	..
Laurier	..	..	..	..	..	..	..	..
Lobo	..	..	..	..	..	..	..	..
Lount	..	..	..	..	..	..	..	..
Laird	..	..	..	..	..	..	..	..
Lochiel	130	1	..	..	3	.	..	..
Macaulay	..	..	5	5	..	.	..	..
Machar	1	..	..	..	..	..	..	..
Maidstone	..	..	..	..	1	1	..	..
Matchedash	..	..	..	..	1	.	..	..
Malahide	..	..	1	1	2	1	..	..
Malden	..	..	..	..	..	..	..	..
Mara	..	..	..	..	..	..	1	.
Manvers	..	..	13	..	4	.	..	..
Mosa	3	..	..	..	..	..	..	..
March	..	..	10	1	..	.	2	.
Mariposa	..	..	1	..	5	.	..	..
Marmora & L	..	..	..	..	1	1	6	2
Mattawan	..	..	..	..	..	..	..	..
Mayo	..	..	8	..	..	.	..	..
Melancthon	..	..	3	..	..	.	..	..
Mersea	..	..	7	..	5	1	10	.
Metcalfe	..	..	..	..	..	.	..	..
Middleton	..	..	..	..	..	.	..	..
Minto	..	..	..	..	..	.	..	..
Monaghan, N	..	..	..	..	..	.	..	..
Mono	..	..	2	2	..	.	..	..
Moore	1	..	2	1	3	.	6	2
Monck	..	..	..	..	..	.	..	..
Murry	..	..	1	1	1	1	1	1
Monmouth	..	..	..	..	1	.	..	..
Matilda	..	..	..	..	..	1	..	1
Moulton	..	..	..	..	..	.	..	..
Mornington	..	..	..	..	..	.	..	..
Muskoka	..	..	..	..	1	.	..	..
Mulmur	..	..	3	3	2	.	..	..
Medora & W	..	..	..	..	..	.	3	.
Mountain	..	..	..	..	1	1	..	..
Marlborough	1	..	..	..	..	.	..	..
Madoc	1	..	..	..	..	.	..	..
Morris	..	..	..	..	1	1	..	..
McMurrich	..	..	1	..	..	.	..	..
McDonald & M	15	..	..	..	..	.	..	..
McIrwin	1	..	4	1	6	.	2	.
McDougal	..	..	1	1	..	.	..	..
McKillop	..	..	..	..	..	.	..	..
McLean & R	..	..	2	2	..	.	..	..
McKellor	..	..	..	..	..	.	..	..
McGillivray	3	..	5	..	..	.	..	..
McNab	13	..	..	..	5	2	1	1
Marysburgh, S	..	..	..	..	1	.	..	..
Marysburgh, N	..	..	..	..	1	.	..	..
Monaghan, S	..	..	..	..	..	.	..	..
Minden	..	..	4	..	1	.	..	..
Medonte	..	..	25	..	1	1	1	.
Montague	2	..	..	..	..	.	..	..
Nairn & Lorne	..	..	..	..	..	.	..	..
Neebing	..	..	6	..	1	.	..	..
Niagara	..	..	..	..	..	.	1	1
Nichol	..	..	..	..	..	.	..	..
Nissouri, E	..	..	..	..	8	.	..	..
Nissouri, W	..	..	..	..	1	1	..	..
Nottawasaga	1	..	10	..	3	1	9	1
Nepean	78	2	69	3	37	3	..	2
Nassagwaya	1	..	..	..	..	.	1	1
Norwich, N	..	..	..	..	..	.	1	.
Normandy	..	..	..	..	..	.	..	..

Cases and Deaths from Contagious Diseases by Municipalities for 1902.—*Continued.*

Townships	Small-pox.		Scarla-tina.		Diph-theria.		Ty-phoid.		Townships.	Small-pox.		Scarla-tina.		Diph-theria.		Ty-phoid.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases	Deaths.		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Nelson									Shefield					2		3	
Oakley									Sherborne &c.					1			
Oliver							1		Sherbrooke, S								
Onondaga									Sherbrooke								
Ops			8	1					Smith								
Oxford							2		St. Vincent					2	2		
Orillia									Sophiasburg								
Oro			8	2	7	1			Southwold							3	
Osprey	76				6	1			Stamford			1					
Otonabee	1		5		9	2			Stanley								
Oxford, E			8	1	1				Stanhope								
Oxford, N									Stafford	4							
Oxford							1	1	Stephen	50							
Olden			10						Stisted			1		1			
Oakland									Sullivan					2		7	2
Osnabruck	9								Sunnidale								
Oneida									Sydenham								
Oso	1								Seymour								
Peel	1			2	2	1		1	Snowden								
Palmerston	1								Strong	1							
Percy	1				5	2	7	1	Sarnia							2	2
Pilkington									Sault Ste Marie	3		18		4		30	
Perry	7				9				Sandwich W								
Plantaganet, N	55		1	1	7	2	2		Somerville								
Plympton									Sidney							10	1
Plummer			4						Tay			1	1			1	1
Puslinch	18		4	4		2		2	Tecumseth	1							
Portland	1								Tehkummah								
Pelham			4						Thessalon	4							
Petewawa									Thorold								
Pittsburgh							1	1	Thorah								
Papineau					1	1			Tilbury, N	3		1		10	3		
Pembroke	1								Tilbury, E	40						15	
Pickering			5	1	9	2	3		Townsend						1		
Proton									Trafalgar	3							
Pelee					6	1	4	1	Tilbury, W					4			
Pakenham	5								Toronto Gore			4					
Raglan									Tuckersmith					1			
Rainham	7		4	1					Turnbury					1		3	
Raleigh	28		18		8	1			Tyendinaga			1	1			1	
Rama							1		Tossorontio								
Ramsay									Tiny	1				1			
Radcliffe									Thurlow								
Rayside									Toronto	18		15		6		5	
Reach			10	1	1				Usborne								
Richmond									Uxbridge					9		15	1
Rochester			2		1	1			Vespra								
Ross	1		4	1					Verulam					2		2	
Rolph, B. & W	10								Van Horne						1		
Roxborough	31		1						Wilberforce			3					
Ratter & Dunnett									Williamsburg								
Ryde									Waligoon			6	1			1	
Ryerson									Williams, E								
Rawdon									Wainfleet			50		20		7	
Romney					1	1	1	1	Wallace			1		5		1	
Russell	300	1	6		12		2		Woodhouse	11						2	2
Sarawack							1		Walsingham, S								
Sandfield									Wawanosh, E	16						3	
Sandwich, S					4	2			Wawanosh, W			1	1				
Saltfleet					7	1	5	1	Waterloo	1		10				15	
Saugeen					1	1			Wellesley			20		1		17	1
Scarborough			6		14	1	1		Westmeath	5				2	1	2	
Schrieber	1		24	3	1				Westminster					1	1	2	2
Scott									Wollaston								
Scugog					1		1	1	Watt								
Sebastopol									Willoughby								
Seneca	3				1	1			Walsingham, N					6			

Cases and Deaths from Contagious Diseases by Municipalities for 1902.—*Continued.*

Townships.	Small-pox.		Scarla-tina.		Diph-theria.		Ty-phoid.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Wilmot	2	...	...	...	4	1	4	..
Wolford	1	...	....	....	....	..	....	..
Winchester	....	....	...	...	....	..	....	..
Whitchurch	....	....	...	....	1	..	....	..
Woolwich	....	....	....	....	....	..	....	..
Walpole	12	1	....	....	....	..	....	..
Widdefield	2	..	5	2	3	1	....	..
Whitby, E.	....	...	....	....	....	..	....	..
Whitby	....	....	....	....	....	..	....	..
York	2	....	16	...	30	3	....	..
Yarmouth	1	....	2	....	2	..	2	1
Yonge & E. Front	....	....	....	....	....	..	....	..
Yonge & E. Rear	....	....	....	....	....	..	....	..
Zorra, E.	....	....	7	..	1	..	4	2
Zone	....	....	27	....	....	.	1	..
Zorra, W.	....	....	....	....	....	..	....	..

REPORT

OF THE

SECRETARY AND REGISTRAR

OF THE

PROVINCE OF ONTARIO,

FOR THE YEAR ENDING 31ST DAY OF DECEMBER

1902.

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO.

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1903.

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TORONTO.

To the Honourable Sir Oliver Mowat, Knight Grand Cross of the Most Distinguished Order of St. Michael and St. George, Member of the King's Privy Council for Canada, and Lieutenant-Governor of the Province of Ontario.

May it Please Your Honour:

The undersigned begs respectfully to present to Your Honour the Report prepared with respect to the chief transactions of the Department of the Secretary and Registrar of the Province of Ontario during the year ending the 31st day of December, 1902.

J. R. Stratton,

Secretary and Registrar of the Province of Ontario.

Provincial Secretary's Office,

Toronto, 8th January, 1903.

PROVINCIAL SECRETARY'S OFFICE.

TORONTO, January 8th, 1903.

To the Honourable

JAMES ROBERT STRATTON, M.P.P.,

Secretary of the Province of Ontario,

Etc., Etc., Etc.

SIR,—In submitting his Annual Report with regard to the details of the various services rendered by the Office of the Provincial Secretary during the year 1902, the undersigned begs leave to invite attention to the fact that in every item of work there was evidence of increase over any previous year, while in respect of several items, but more particularly in respect of one to be referred to hereafter, the increase was so marked as to deserve especial notice.

It should be borne in mind that this Report deals, not with the Department as a whole as now constituted or even with the Department proper, being that of the Secretary and Registrar, but, with one of the offices of which it is composed. The Department now includes the Branches of the Registrar-General, the Inspectors of Prisons and Public Charities, the administration of the Liquor License Law, the supervision of the health of the Province and the auditing of Criminal Justice Accounts, by each of which Branches Annual Reports are published.

As has been already been mentioned, the volume of work in the Secretary's Office during the past year maintained the steady growth that has been reported for nearly twenty years. But in one regard such growth has been phenomenal. Allusion is made to the incorporation by Letters Patent of industrial and other Companies under The Ontario Companies Act.

On the occasion of the last revision of the Statutes in 1897, advantage was taken to consolidate, amend and improve The Ontario Joint Stock Companies Letters Patent Act which, in its main features, remained in much the same form as when first passed in 1874. The chief object was to remove or modify certain provisions which experience in the formation and working of joint stock Companies had been shown not to be in the interest of such Companies, and,—a more important matter—no longer in the interest of the general public. While the scope of the Act was enlarged, the Statute itself was adapted so as to secure the better working of Companies in general and to insure the better protection of shareholders. Almost immediately, the new Ontario Companies Act, as it is styled, became popular, and applications for the issue thereunder of Letters Patent doubled and trebled. Of late, it has been found that Ontario Companies can carry on business abroad as well as at home under their Charters, Ontario Companies, like all others, no matter where incorporated, having only to satisfy the local conditions by which they are met. Within the last year or two, Charters

have been taken out for Companies intending to carry on their operations elsewhere than in the Province. As a consequence, Companies, some of them working on a very large scale, have been incorporated and are carrying on business in other parts of His Majesty's Dominions, in the United States of America and Cuba, in Central and South America, and even in England and Spain, local conditions having, of course, been complied with. But this is not the only noticeable feature as regards Companies. If the reports of earlier years be examined, it will be observed that twenty, fifteen and even ten years ago, the capitals of Companies being incorporated were so seldom in excess of $50,000 that a Company having a capital of $100,000 was spoken of as a "big Company." Such is no longer the case. A capital of $100,000 now quite frequently appears in a Charter and numerous Companies have been capitalized at amounts far in excess of that sum. Of the Companies created last year, very many had capitals exceeding $100,000 while no less than thirty-eight had capitals fixed at sums between $500,000 and $1,000,000 and forty others at sums in excess of $1,000,000.

As a consequence of the creation of large and important enterprises having wide business interests and relationships, it has been thought that The Ontario Companies Act of 1897, though a marked advance over its predecessor, may still be improved in various respects, and the undersigned would, therefore, recommend for your consideration, either at the next revision of the Statutes of the Province, or at an earlier Session of the Legislature, the propriety of amending the Act so as give effect to various suggestions which have been made by yourself or have occurred to the undersigned in dealing with applications for the incorporation of Companies, or to solicitors who, in advising their clients either before or after incorporation, have had their attention called to details of company management, or working, for which it was doubtful that the Act had made provision.

During the year, many Extra Provincial Corporations received Licenses. It is not surprising that the total number of Licenses issued was less than the total number issued in 1901. The reason for this is that last year, as a rule, they were granted to Companies which had newly come into Ontario, while in 1900 and 1901 most of the Licenses went to Companies which had been carrying on business in the Province when The Act respecting the Licensing of Extra Provincial Corporations was passed. This Act has been found to have a salutary effect, for in addition to affording to anyone interested an official means by which can be obtained information as to the incorporation, existence and powers of foreign Companies operating in Ontario, it has simplified legal procedure by obliging each licensed Company to be represented in the Province by some one acting as its duly appointed Attorney, upon whom, if necessary, process can be served. It has, also, removed the complaint, often made prior to the year 1900, that outside Companies were being allowed to carry on business in Ontario and to compete unfairly with Companies incorporated under

our laws which were subject to certain Statutory provisions and conditions which foreign Companies escaped.

For the first time, it has been found to be difficult, if not impossible, to compile accurate statistics as to the correspondence carried on in the Secretary's Office during any given year. The communications of every kind which have been received and which have been sent out have been, in volume, largely in excess of that of any previous year. As time passes, and as different means have to be adopted for acknowledging receipt of applications for various kinds of forms and the transmission of returns, fees, etc., etc., in addition to the more formal correspondence by letter, there are no longer the facilities for keeping record that at one time existed. However, it may be stated that this service has been one of the most exacting in this office.

Possibly, the best means of testing the work done is afforded by the fees paid into the Secretary's Office.

The fees derived from the services rendered by the Department during the year amounted in the aggregate to $108,758.91, and, the sum of $1,189 having been for various reasons refunded, to the net amount of $107,569.91, an increase over the previous year of $20,035. The appended table shows the fees as they were received month by month.

Statement of Office Fees by Months.

January	$ 5,597 45	
February	17,993 79	
March	7,426 00	
April	10,845 40	
May	8,610 41	
June	7,959 20	
July	8,023 90	
August	6,669 10	
September	7,558 80	
October	9,041 16	
November	8,844 13	
December	10,192 35	
		$108,758 91

Less following Refunds:

Echo Lake Mining Company	5 00
University Company	100 00
York Riding and Driving Club	2 00
King Edward Scientific Institute	10 00
Prince Edward Independent Telephone Company	160 00
Woodstock, Thames Valley and I. Electric Railway	5 00
Veterans Locating and Colonization Association	100 00
Mitchell Sporting and Athletic Association	100 00
J. H. MacKenzie, Limited	100 00
Dominion Motor and Machine Company	10 00

Bowmanville Foundry Company	$ 10 00	
H. W. Nelson and Company	50 00	
John Abell Engine and Machine Company	385 00	
Sun Oil Refining Company	50 00	
Less transferred to Registrar Loan Corporations:		
Toronto Savings and Loan	100 00	
Land Security Company	2 00	
		$ 1,189 00
		$107,569 91

Statement of General Fees received during 1902.

Letters Patent, Licenses, etc	$95,330 60
Returns from Companies	8,038 05
Marriage Act Forms	3,218 50
Notarial Commissions	440 15
Commissions under Great Seal	1,158 35
Certificates	123 50
Searches	449 76
	$108,758 91
Less refunds and transfers	1,189 00
Total	$107,569 91

Number of Charters and Licenses issued.

Year.	No. of Instruments.	Fees
1891	152	$ 5,030
1892	158	6,780
1893	138	8,465
1894	139	7,720
1895	174	10,060
1896	154	14,335
1897	358	34,650
1898	295	23,820
1899	416	60,817
1900	438	71,179
1901	450	75,782
1902	591	95,330

The following Proclamations were issued during the year 1902:

1. Summoning the Legislative Assembly for the despatch of business.
2. *Re* Royal Style and Titles in recognition of His Majesty's Dominions beyond the Seas, together with those issued by the Dominion and Imperial Governments to the same effect.
3. Additions to the limits of the Town of Wallaceburg.
4. Addition to the limits of the Town of Wiarton.
5. Amending proclamation *re* the Town of Wallaceburg.
6. Dissolving the Legislative Assembly.

7. Respecting Imperial Statutes relating to Property and Civil Rights.

8. Addition to the limits of the Town of Paris.

9. Addition to the limits of the City of Hamilton.

10. Additions to the limits of the Village of East Toronto.

11. Village of East Toronto (Supplementary.)

12 Offering reward for the apprehension of the murderer of one Frank Hale.

13. Fixing the 25th day of May, 1903, as the day for the celebration of His Majesty's Birthday.

14. Erecting the Village of Alexandria into a Town to be known as the "Town of Alexandria."

15. Erecting the Village of East Toronto into a Town by the name of "The Town of East Toronto."

16. Withdrawing the Town of Smiths Falls from the jurisdiction of the Council of the County of Lanark.

17. Erecting Bruce Mines into a Corporation by the name of "The Corporation of the Town of Bruce Mines."

The usual Tables and Appendices accompany this Report.

All of which is respectfully submitted,

G. E. LUMSDEN,
Assistant Secretary.

I.—Comparative Statement showing the work done in the Provincial Secretary's Office during the years specified.

Work done.	1863.	1871.	1875.	1881.	1886.	1888.	1891.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	
No. of Fyles *made* the Office Register	1,172	1,264	1,862	2,408	3,575	4,275	4,379	5,340	6,292	5,391	6,279	6,478	6,301	6,495	6,010	7,003		6,766
Letters, etc., received (est.)	2,107	1,690	3,289	4,162	6,097	10,626	12,648	13,928	14,320	13,754	13,472	11,816	13,317	15,088	17,118	23,000		
Letters, etc., sent (est.)	1,667	1,280	3,326	3,756	5,734	13,458	13,573	14,761	17,812	13,595	17,385	15,264	14,394	16,740	19,650	25,000		
References to other dep'ts (est.)	481	912	1,642	1,790	899	2,948	3,013	2,636	2,660	4,044	2,877	2,298	3,156	3,255	2,840	3,500		
Reports from other dep'ts (est.)	256	470	966	1,395	2,689	2,760	2,685	2,621	2,616	4,394	3,467	2,679	3,430	2,077	2,282	2,300		
Letters Patent and Licenses	19	24	57	119	90	117	152	138	139	174	154	358	255	416	438	516		530
Supp'lementary Letters Patent.					14	19	16	21	11	14	10	18	18	10	29	31		43
Circulars (est.)	240	60	1,429	954	200	600	500	150	1,300	350	560	300		800	1,000	2,000		
Warrants *re* lunatics	34	195	160	359	394	430	544	396	364	592	365	440	348	374	387	329		436
[Notarial] Certificates	48	72	37	76	93	110	105	108	97	131	113	128	119	162	118	147		126
Statutory returns, etc. (est.)	52	58	135	2,500	1,000	1,500	2,800	3,000	3,500	4,000	4,500	5,000	5,500	5,500		2,000		2,500
Marriage Act Forms, etc., issued			28,422	27,882	26,254	29,911	28,300	28,965	37,459	27,098	30,945	34,045	28,697	31,467	67,520	64,948		106,955
Forms distributed to Sheriffs				1,800	2,000	3,500	5,000	5,000	5,000	5,500	5,000	5,500	5,500	5,500	5,500			
Other printed forms				3,500	2,350	2,700	300	500	300	350	350	400	1,000	1,000	3,000	4,500		
Commissions: Great and Privy Seals	135	190	139	275	227	534	297	305	338	308	185	225	169	284	281	420		234
Fees received	$1,938	$2,282	$5,688	$7,021	$6,947	$9,190	$9,193	$13,204	$12,400	$14,384	$18,847	$39,280	$28,520	$67,851	$76,997	$88,645	$107,269	91
Ontario Gazette: Proclamations published		16	21	17	13	13	10	6	6	7	6	9	9	9	9	10		17
Appointments gazetted.	110	149	94	525	535	541	468	482	497	495	430	401	430	575	465	451		272
Public notices	47	58	80	127	119	150	179	189	163	196	177	400	282	165	472	650		590

APPENDIX II.

List of Charters Issued during the Year 1902.

APPENDIX II. List of Charters issued during the year 1902.

Name of Company.	Capital.	Head Office.
A.		
A. I. McCall and Company, Limited	30,000	Chatham.
The Alwington Springs Hotel Company, Limited	150,000	Kingston.
Alexander Fleck, Limited	50,000	Ottawa.
The Algoma Tube Works, Limited	30,000,000	Sault Ste. Marie.
Atlantic Pulp and Paper Company, Limited	3,000,000	Toronto.
American Tent and Awning Company, Limited	40,000	Toronto.
The Automobile Garage, Limited	40,000	Toronto.
The Alpha, Delta, Phi House of Toronto, Limited	15,000	Toronto.
The Archer Development Company, Limited	300,000	Toronto.
The Agate Poultry Company, Limited	10,000	Davisville.
The Algoma Navigation Company, Limited	250,000	Toronto.
The Alexander Brown Milling and Elevator Company, Limited	300,000	Toronto.
American-Abell Engine and Thresher Company, Limited	1,000,000	Toronto.
Alpha Paving Company, Limited	50,000	Toronto.
The Allen and Hanburys Company, Limited	250,000	Toronto.
The Ault and Wiborg Company of Canada, Limited	50,000	Toronto.
Allen Manufacturing Company, Limited	500,000	Toronto.
The Algoma Consolidated Silver Mines, Limited	1,000,000	Toronto.
The Annual Review Publishing Company, Limited	10,000	Toronto.
The Alexandra Palace Company, Limited	100,000	Toronto.
B.		
The Big Four Cap Company, Limited	20,000	Toronto.
The Boake Manufacturing Company, Limited	60,000	Toronto.
The Broadbent Wood Turning Company, Limited	20,000	Broadbent.
Beaverton Brick and Tile Company, Limited	17,000	Beaverton.
The Blonde Lumber and Manufacturing Company, Limited	80,000	Chatham.
The Ball Furniture Company, Limited	40,000	Hanover.
B. Bell and Son, Limited	200,000	St. George.
The Barrie Curling and Athletic Club, Limited	10,000	Barrie.
The Bird Woollen Mill Company, Limited	50,000	Bracebridge.
The Black Rock Mining Company, Limited	150,000	London.
The Burton and Baldwin Manufacturing Company, Limited	40,000	Hamilton.
The Bruce Mines Town Hall Company, Limited	4,000	Bruce Mines.
Britannia Athletic Association, Limited	10,000	Hamilton.
The Burritt and Deacon Company, Limited	40,000	Stratford.
The Bear Creek Cemetery Company, Limited	1,000	Brigden.
Bracebridge Brilliant Light Manufacturing Company, Limited	20,000	Bracebridge.
The Beaver Paper Company, Limited	40,000	Toronto.
The Butchart Brothers Real Estate Company, Limited	150,000	Owen Sound.
The Brodhagen Lumber Company, Limited	50,000	Brodhagen.
The Baden Manufacturing Company, Limited	40,000	Baden.
Boyd, Caldwell and Company, Limited	200,000	Lanark.
Brantford Varnish Company, Limited	40,000	Brantford.
The British-Canadian Crockery Company, Limited	40,000	Toronto.
The British-Canadian Pulp Company, Limited	500,000	Toronto.
Biggar-Samuel, Limited	40,000	Toronto.
British-Canadian Wheat Raising Company, Limited	1,000,000	Toronto.
Brantford Screw Company, Limited	150,000	Brantford.
The Bruce Mines Manufacturing Company, Limited	40,000	Bruce Mines.
The Berlin Chemical Company, Limited	100,000	Toronto.
C.		
The Chipman-Holton Knitting Company, Limited	150,000	Hamilton.
The Cargill Sugar Company, Limited	500,000	Cargill.
The Colonial Portland Cement Company, Limited	800,000	Wiarton.

APPENDIX II.—List of Charters issued during the year 1902.

Name of Company.	Capital.	Head Office.
	$	
The Canadian Cream Cheese Company, Limited	5,000	Ottawa.
Canadian Policy-Holders' Union, Limited	50,000	Toronto.
The Canadian Investment and Brokerage Company, Limited	50,000	Toronto.
The Consolidated Copper Company of Parry Sound, Limited	5,000,000	Parry Sound.
Crown Whitewear Company, Limited	100,000	Toronto.
Cowan and Company of Galt, Limited	100,000	Galt.
The Cook, Lummis Lumber Company, Limited	600,000	Spragge.
Canada Pine Lumber Company, Limited	150,000	Hamilton.
The C. C. Ray Company, Limited	50,000	Ottawa.
The Canadian Ultimator Company, Limited	50,000	Peterborough.
The Computing Scale Company of Canada, Limited	40,000	Toronto.
The Christie Brothers Company, Limited	40,000	Owen Sound.
Canada Carbon Light Company, Limited	150,600	Toronto.
The Canadian Scoria Block Company, Limited	150,000	Toronto.
C. Stephens Company, Limited	100,000	Collingwood.
Consolidated Electric Company, Limited	100,000	Toronto.
Cornwall Street Railway, Light and Power Company, Limited.	200,000	Cornwall.
The Canada Last Company, Limited	40,000	Toronto.
The Canadian Rolling Stock Company, Limited	2,000,000	Toronto
Chippewa Consolidated Gold Mining and Milling Company, Limited	2,000,000	Toronto.
Crawford Brothers, Limited	40,000	Toronto.
Canada Crude Oil Producers, Limited	100,000	Toronto.
The Copper Queen Mining Company, Limited	3,000,000	Sault Ste. Marie.
Canadian-American Linotype Corporation, Limited	500,000	Toronto.
The Canadian Conservatory of Music, Limited	40,000	Ottawa.
The Canadian-Buffalo Forge Company, Limited	100,000	Toronto.
The Canadian Coral Marble Company, Limited	500,000	Toronto.
The Canadian Correspondence College, Limited	40,000	Toronto.
The Colonial Typewriter Company, Limited	100,000	Peterborough.
Colonial Weaving Company, Limited	60,000	Toronto.
The Citizen's Water, Gas and Electric Company of Strathroy, Limited	50,000	Strathroy.
The Canadian Household Supply Manufacturing Company, Limited.	50,000	Windsor.
Clover Leaf Mining Company, Limited	1,000,000	Toronto.
Canadian Machine Telephone Company, Limited	250,000	Ottawa.
The Chris. Moore Company, Limited	20,000	Orillia.
The Chaney Burglar Proof Sash Lock Company, Limited	10,000	Toronto.
The Canadian Northern Railway Elevator Company, Limited	500,000	Toronto.
The Cerberite Company of Canada, Limited	500,000	Toronto.
C. Wilson and Son, Limited	200,000	Toronto.
The Canadian Wood Manufacturing Company, Limited	500,000	Toronto.
Canada Metal Milling Company, Limited	50,000	Toronto
The Canada Metal Company, Limited	20,000	Toronto.
The Cornwall Furniture Company, Limited	50,000	Cornwall.
The Contractors Supply Company, Limited	25,000	Ottawa.
The Canadian Gum and Confectionery Company, Limited	40,000	Toronto.
The Crown Furniture Company of Preston, Limited	40,000	Preston.
The Canadian Store Advertising Association, Limited	50,000	Toronto.
City Steam Laundry Company of Collingwood, Limited	10,000	Collingwood.
The Chaplin Wheel Company, Limited	200,000	St. Catharines.
The Consolidated Petroleum Company, Limited	100,000	London.
The Claflin Chemical Company, Limited	10,000	Windsor.
The Canadian Export Company, Limited	50,000	Toronto.
The Canadian Cash Register Company of Toronto, Limited	50,000	Toronto.
The Canadian Automatic Hay Press Company, Limited	50,000	Brantford.
The Cassiar Coal Development Company, Limited	300,000	Toronto.
The Chinese-Ontario Gensing Company, Limited	50,000	Dutton.
The Crocker-Parks Oil Company, Limited	50,000	Oil Springs.

APPENDIX II.—List of Charters issued during the year 1902.

Name of Company.	Capital.	Head Office.
	$	
Canada Fish Company, Limited	1,000,000	Toronto.
Canada Steel Shafting Company, Limited	100,000	Toronto.
The Canadian Wringer and Specialty Company, Limited	40,000	Toronto.
The Canadian Shipbuilding Company, Limited	1,000,000	Toronto.
The Canada Launch Works, Limited	40,000	Toronto.
The Clifton Hotel Company, Limited	500,000	Niagara Falls.
The Canada Spice and Grocery Company, Limited	50,000	London.
The Canadian Trinidad Association, Limited	300,000	Walkerville.
The Curtis Screw Making Machine Company, Limited	3,000	Toronto.
The Cataract Auxiliary Company, Limited	1,000,000	Hamilton.
The Crossin Piano Manufacturing Company, Limited	50,000	Toronto.
The Chatham Oil Company, Limited	20,000	Chatham.
The Canadian Heating and Ventilating Company, Limited	200,000	Owen Sound
The Culverhouse Optical Company, Limited	40,000	Toronto.
D.		
The Dufferin Casket Company, Limited	50,000	Orangeville.
D. S. Perrin and Company, Limited	250,000	London.
The Dominion Harness Company, Limited	40,000	Port Elgin.
The Dominion Cereal Company, Limited	1,000,000	Peterborough.
The Dunwich Farmer's Building Company, Limited	20,000	Dutton.
The Dominion Motor and Machine Company, Limited	40,000	Toronto.
The Delhi Fruit and Vegetable Canning Company, Limited	100,000	Delhi.
Davis-Thompson Company, Limited	40,000	Peterborough.
Dominion Peat Products, Limited	100,000	Brantford.
The Dominion Supply Company, Limited	500,000	Ottawa.
The Doctor Gordon Medicine Company, Limited	40,000	Toronto.
The Dunwich Gas and Oil Company, Limited	100,000	St. Thomas.
The Dominion Bakeries, Limited	300,000	Toronto.
The Dominion Oil Filter and Metal Company, Limited	40,000	Guelph.
The de Kleist Musical Machine Company, Limited	500,000	Toronto.
The Downie Milling Company, Limited	20,000	South River.
The De Lano-Osborn Engineering Company, Limited	10,000	Toronto.
The Dominion Library Company, Limited	14,000	Ottawa.
Domestic Supplies Company, Limited	40,000	Toronto.
The Dymond-Sommerville Company of Strathroy, Limited	40,000	Strathroy.
The Dominion Canister Company of Toronto, Limited	50,000	Toronto.
Dominion Phelps, Limited	250,000	Toronto.
The Delta Kappa Epsilon Chapter House Company of Toronto, Limited	10,000	Toronto.
Dominion Oil Company, Limited	850,000	Chatham.
The Daisy Petroleum Company, Limited	40,000	London.
The Dominion Belting Company, Limited	50,000	Hamilton.
E.		
The Eastman Machine Company, Limited	30,000	Toronto.
Ennis and Company, Limited	100,000	Hamilton.
The Enterprise Specialty Company, Limited	40,000	Toronto.
The English River Gold Mining Company, Limited	1,000,000	St. Catharines.
The Empire Electric and Manufacturing Company of Ottawa, Limited	40,000	Ottawa.
The E. D. Tillson Estate, Limited	200,000	Tillsonburg.
Excelsior Shoe Company, Limited	50,000	Toronto.
Eureka Specialty Company, Limited	40,000	Toronto.
The E. H. Jackson Company, Limited	12,000	Simcoe.
The Eagle Knitting Company, Limited	300,000	Hamilton.
E. & S. Currie, Limited	250,000	Toronto.
The Ellis Manufacturing Company, Limited	100,000	Port Dover.

APPENDIX II.—List of Charters issued during the year 1902.

Name of Company.	Capital.	Head Office.
	$	
The Eastern and Western Land Corporation, Limited	1,000,000	Toronto.
The Equitable Gas Company, Limited	50,000	Goderich.
F.		
The Fowke Singer Company, Limited	40,000	Toronto.
The Fort Frances Hematite Company, Limited	40,000	Fort Frances.
The Foster Pottery Company, Limited	40,000	Hamilton.
The Frontenac Cereal Company, Limited	500,000	Kingston.
Faramel, Limited	12,000	Toronto.
The Frontier Lighting Company, Limited	40,000	Bridgeburg.
The Fort Erie Jockey Club, Limited	80,000	Fort Erie.
The Forged Steel Car Wheel Company, Limited	700,000	Perth.
G.		
The Galt Carpet Company, Limited	40,000	Galt.
Grip, Limited	75,000	Toronto.
The Guelph Cigar Company, Limited	5,000	Guelph.
The Globe Refining Company, Limited	300,000	Ottawa.
The G. Carter, Son and Company, Limited	90,000	St. Mary's.
Giant Gold Company, Limited	700,000	Gold Rock.
The Globe-Wernicke Company, Limited	100,000	Stratford.
The Guelph Biscuit and Confectionery Company, Limited	10,000	Guelph.
The Gardiner Furniture and Furnishings Company, Limited	40,000	Toronto.
The Goulais Bay Mining Company, Limited	3,000,000	Sault Ste. Marie
Gorman, Eckert and Company, Limited	100,000	London.
Gunns, Limited	750,000	Toronto.
The General Distilling Company, Limited	600,000	Toronto.
Great Lakes Dredging Company, Limited	250,000	Toronto.
The Grant Acetylene Generator Company, Limited	100,000	St. Thomas.
The Great North-West Mining Company, Limited	3,000,000	Toronto.
The Griffiths-Dixon Company, Limited	40,000	Toronto.
George Coles, Limited	40,000	Toronto.
H.		
Hamilton, Berkinshaw Company, Limited	40,000	Toronto.
The Hawkins Construction Company, Limited	20,000	Toronto.
H. W. Nelson and Company, Limited	50,000	Toronto.
The Hamilton Liberal Club, Limited	3,000	Hamilton.
The Hahn Brass Company of New Hamburg, Limited	40,000	New Hamburg.
The Hagersville Contracting Company, Limited	30,000	Hagersville
The Hobbs Manufacturing Company, Limited	50,000	London.
The Hobbs Hardware Company, Limited	350,000	London.
Howland Brothers, Limited	75,000	Kleinburg.
The Huntsville and Bracebridge Tanning Company, Limited	100,000	Huntsville.
The H. S. Falls Company of Simcoe, Limited	50,000	Simcoe.
The Huntsville, Lake of Bays and Lake Simcoe Navigation Company, Limited	100,000	Huntsville.
H. S. Howland, Sons and Company, Limited	300,000	Toronto.
The Hamburg-American Wagon Company, Limited	100,000	New Hamburg.
The Hanover Specialty Company, Limited	40,000	Hanover.
Hess Furniture Company of Bracebridge, Canada, Limited	65,000	Bracebridge.
Hogg and Lytle, Limited	150,000	Oakwood.
The H. R. Lamb Fence Company, Limited	300,000	London.
The Hallamore Pharmacy Company, Limited	40,000	Toronto.
The Hatch Electric Smelting and Refining Company of Ontario, Limited	500,000	Parry Sound.

APPENDIX II. – List of Charters issued during the year 1902.

Name of Company.	Capital.	Head Office.
	$	
The Huron Mineral Water Company, Limited	10,000	St. Joseph.
The Home Gold and Copper Company, Limited	3,000,000	Toronto.
The Henderson Roller Bearing Manufacturing Company, Limited	1,000,000	Toronto.
The Henry Kuntz Brewing Company of Hamilton, Limited	100,000	Hamilton.
The Hurlbut Company, Limited	20,000	Toronto.
The Hatton Patent Right Company, Limited	50,000	Owen Sound.
H. W. Burnett Company, Limited	50,000	Toronto.
The Holguin Fruit Company, Limited	50,000	London.
The Haggas Gas Engine Company, Limited	40,000	Toronto.
I.		
The Iron-Ox Remedy Company, Limited	100,000	Walkerville.
International Lumber Company, Limited	100,000	Sault Ste. Marie.
The Imperial Plaster Company, Limited	75,000	Toronto.
The Imperial Rolling Stock Company, Limited	1,000,000	Toronto.
The Imperial Veneer Company, Limited	40,000	Toronto.
The International Buckle Company, Limited	75,000	Westport.
Illsley and Horn, Limited	100,000	Toronto.
The International Mercantile Agency, Limited	100,000	Toronto.
The International Mining Company, Limited	1,500,000	Sault Ste. Marie.
Imperial Paper Company, Limited	100,000	Toronto.
Imperial Natural Gas, Limited	100,000	Brantford.
Industrial Soap and Oil Company, Limited	200,000	Toronto.
International Portland Cement Company, Limited	1,000,000	Toronto.
Inland Lakes Transportation Company, Limited	1,000,000	Collingwood.
Indian Joe Gold Mining Company, Limited	500,000	Toronto.
J.		
The John Abell Engine and Machine Company, Limited	1,000,000	Toronto.
The Journal Publishing Company of St. Thomas, Limited	50,000	St. Thomas.
The Jocko River Improvement Company Limited	40,000	Pembroke.
The Journal of Saint Catharines, Limited	20,000	St. Catharines.
J. L Rochester, Limited	75,000	Ottawa.
J. M. Green and Sons, Limited	50,000	St. Thomas.
Jas. Carruthers and Company, Limited	100,000	Toronto.
J. F. McLaughlin Company, Limited	40,000	Toronto.
J. A. Carveth and Company, Limited	40,000	Toronto.
The Jubilee Mining Company, Limited	500,000	Toronto.
The J. Hoodless Furniture Company, Limited	40,000	Hamilton.
K		
King, Darrell, Walker Company, Limited	40,000	Toronto.
The H. Krug Furniture Company, Limited	100,000	Berlin.
The King Edward Hotel Company, Limited	500,000	Toronto.
The Keenora Mining Company, Limited	1,000,000	Toronto.
The Kemp Manure Spreader Company, Limited	60,000	Stratford.
L.		
The Lake Superior Terminals Company, Limited	1,000,000	Toronto.
Lake Superior Timber Company, Limited	50,000	Windsor.
The London Builders' Supply and Manufacturing Company, Limited	40,000	London.
The Lake of Bays Wool Manufacturing Company, Limited	25,000	Birkendale.
La Reina Company, Limited	50,000	Toronto.
The London Rolling Mills Company, Limited	200,000	London.
The Lambton Golf and Country Club, Limited	40,000	Toronto.

APPENDIX II.—List of Charters issued during the year 1902.

Name of Company.	Capital	Head Office.
	$	
The Laurentian Mining Company, Limited	1,000,000	Toronto.
The L. McBrine Company, Limited	50,000	Berlin.
Lake Rosseau Lumber Company, Limited	40,000	Toronto.
The Lake Erie Coal Company, Limited	100,000	Walkerville
Little Rock Consolidated Mining and Development Company, Limited	1,000,000	Toronto.
The London-Elgin Oil Company, Limited	250,000	London.
Littlejohn and Vaughan, Limited	40,000	Toronto.
The London Hunt Club, Limited	20,000	London.
M.		
The Midland Mercantile and Trading Company, Limited	40,000	Midland.
The McQuay Tanning Company, Limited	50,000	Owen Sound.
The Meaford Manufacturing Company, Limited	50,000	Meaford.
The McLachlan-Joy Electric Company, Limited	37,000	Toronto.
Mackenzie, Mann and Company, Limited	5,000,000	Toronto.
The McGregor, Banwell Fence Company, Limited	60,000	Windsor.
The Milner-Petrolia Waggon Company, Limited	100,000	Petrolia.
The Muskoka Wood Manufacturing Company, Limited	40,000	Huntsville.
McFarlane Company, Limited	100,000	Toronto.
Mulholland, Buchanan Company, Limited	40,000	Toronto.
The Mineral Range Iron Mining Company, Limited	500,000	Windsor.
The Merchants' Union Company, Limited	500,000	Toronto.
The Metzger, Wilcox, Eldridge Company, Limited	15,000	Sault Ste. Marie.
The MacKenzie Power and Development Company, Limited	100,000	Parry Sound.
McGregor and McIntyre, Limited	100,000	Toronto.
The Modern Telephone Company of Hamilton, Limited	300,000	Hamilton.
Malaga Suburban Railways, Limited	2,500,000	Toronto.
The Mariposa Mining Company, Limited	3,000,000	Sault Ste. Marie.
The Modern Transit Company, Limited	40,000	Midland.
The Manitoulin Reformer Printing and Publishing Company, Limited	5,000	Gore Bay.
The Morgan Company, Limited	40,000	Toronto.
The McMurtry Company, Limited	25,000	Midland.
The Mount Forest Manufacturing Company, Limited	40,000	Mount Forest.
The Mill Properties Company of Dundas, Limited	25,000	Dundas.
The Montrose Paper Company, Limited	100,000	Thorold.
The Manes Tailoring Company, Limited	40,000	Toronto.
McAlpin Consumers' Tobacco Company, Limited	500,000	Toronto.
The Mutual Natural Gas Company	100,000	Port Colborne.
N.		
New Ontario Builders and Contractors Supply Company, Limited	20,000	Sault Ste. Marie.
The New York and Ontario Gold Mining Company, Limited	1,000,000	Kingston.
The National Box Company, Limited	20,000	Toronto.
The National Mica Grinding Company, Limited	50,000	Gananoque
The New Ontario Dock and Coal Company, Limited	100,000	Sault Ste. Marie.
The Newmarket Sugar Company, Limited	40,000	Newmarket.
National Lumber Company, Limited	100,000	Toronto.
The Norfolk County Barn Company, Limited	10,000	Simcoe.
National Cross-Ply Veneer Company, Limited	100,000	Toronto.
The National Electric Company, Limited	40,000	Toronto.
The Niagara Falls Machine and Foundry Company, Limited	10,000	Niagara Falls.
The New Ontario Steamship Company, Limited	100,000	Hamilton.
The New Davis Dental Manufacturing Company, Limited	100,000	Toronto.
The Nipissing Telephone Company, Limited	[illegible]000	Sturgeon Falls.
The North West Ranching and Packing Company, Limited	500,000	Toronto.
The New York and Canadian Copper Company, Limited	1,000,000	Kingston.

APPENDIX II.—List of Charters issued during the year 1902.

Name of Company.	Capital.	Head Office.
	$	
The National Petroleum Company of Petrolea, Limited	40,000	Guelph.
The National Publishing Company of Toronto, Limited	40,000	Toronto.
The North Bay Gas Company, Limited	45,000	North Bay.
North Shore Reduction Company	1,500,000	Toronto.
O.		
The Ontario Fruit Package Company, Limited	50,000	Ingersoll.
The Oshawa Canning Company, Limited	100,000	Oshawa.
The O. R. Medicine Company, Limited	50,000	Toronto.
O. B. Stanton and Company, Limited	40,000	Toronto.
Ontario Can Company, Limited	250,000	Toronto.
The Ottawa and Rideau Lakes Rapid Transit Company, Limited	25,000	Ottawa.
The Oshawa Steam and Gas Fittings Company, Limited	50,000	Oshawa.
The Oshawa Athletic Association, Limited	20,000	Oshawa.
The Ontario Poultry Produce Company, Limited	6,000	Toronto.
The Oil Exploration Company of Canada, Limited	200,000	Walkerville.
Ontario-Slocan Lumber Company, Limited	40,000	Orillia.
The Ottawa Machinery Company, Limited	100,000	Ottawa.
The Ontario Works Building Company, Limited	40,000	Niagara Falls.
The Owen Sound Fruit Packing Company, Limited	25,000	Owen Sound.
The Ontario Compressed Air Dustless House-Cleaning Company Limited	50,000	Toronto.
Oxley-Enos Company, Limited	10,000	Toronto.
The Ontario Asphalt Block Company, Limited	150,000	Windsor.
The Ottawa Steel Casting Company, Limited	250,000	Ottawa.
The Orillia Curling Association, Limited	10,000	Orillia.
The Ontario Felt Company, Limited	40,000	Dundas.
P.		
The Personal Athletic and Amusement Club of Toronto, Limited	1,000	Toronto.
The Pontiac Power Company, Limited	100,000	Ottawa.
Peterborough Peat Company, Limited	150,000	Peterborough.
P. W. Ellis and Company, Limited	750,000	Toronto.
The President Gold Mining Company, Limited	1,000,000	Toronto.
The Parisian Laundry Company of Hamilton, Limited	50,000	Hamilton.
The Port Hope Skating and Curling Company, Limited	10,000	Port Hope.
The Puritan Laundry Company, Limited	35,000	Toronto.
The Phelps Light, Limited	500,000	Toronto.
Penberthy Injector Company, Limited	40,000	Windsor.
The Pin Cushion Black Board Company, Limited	50,000	Toronto.
The Powassan Lumber Company, Limited	20,000	Powassan.
Protogene Gold Mines Company, Limited	1,500,000	Windsor.
Prime and Rankin, Limited	75,000	Toronto.
The Phoenix Gold Mining Company, Limited	1,000,000	Fort Erie.
Pan Empire Manufacturing Company, Limited	40,000	Toronto.
The Paris Plow Company, Limited	250,000	Paris.
Photo Mounts, Limited	25,000	Toronto.
The Pearl Laundry Company, Limited	40,000	Sault Ste. Marie
The Power Equipment Company of Ontario, Limited	100,000	London.
The Peterborough Hockey Club, Limited	10,000	Peterborough.
Pure Milk Supply Company, Limited	100,000	Sault Ste. Marie
Port Dover Natural Gas and Oil Company	40,000	Port Dover.
The Peterborough Sugar Company, Limited	350,000	Peterborough.
Page-Hersey Iron and Tube Company, Limited	500,000	Guelph.
Q.		
The Queen City Curling Club	25,000	Toronto.

APPENDIX II.—List of Charters issued during the year 1902.

Name of Company.	Capital.	Head Office.
	$	
The Queen City Vinegar Company, Limited	40,000	Toronto.
The Queen City Agency Company, Limited	50,000	Toronto.
R.		
The Richmondt Conduit and Manufacturing Company, Limited	40,000	Toronto.
The Rideau Curling Club of Ottawa, Limited	10,000	Ottawa.
Robert Elder Carriage Works, Limited	20,000	Toronto.
The Ramage Process Company, Limited	40,000	Toronto.
Rocko Manufacturing Company, Limited	50,000	Toronto.
The Rideau Graphite Company, Limited	30,000	Kingston.
The Renfrew Milling Company, Limited	65,000	Renfrew.
Raven Lake Portland Cement Company, Limited	500,000	Toronto.
The Rolston Electric Laundry Company, Limited	50,000	Toronto.
The Renfrew Roller Mills Company, Limited	50,000	Renfrew.
The Roman Stone Company, Limited	60,000	Toronto.
The Rogers Furniture Company, Limited	40,000	Toronto.
Rota Filters, Limited	25,000	Windsor.
The Raleigh Oil Company, Limited	200,000	Petrolea.
S.		
The Simister Company, Limited	20,000	Ingersoll.
The Sault Gray Copper Company, Limited	400,000	Sault Ste Marie.
The Santa Clara Cigar Company, Limited	50,000	Oakville.
Sand and Dredging, Limited	40,000	Toronto.
The Sarnia Log-Towing Company, Limited	1,000	Sarnia.
The Stephenson Carriage Works Company, Limited	40,000	Cannington.
The Stratford Herald Printing Company, Limited	40,000	Stratford.
Stratford Peat Company, Limited	40,000	Toronto.
The Sault Boating Company, Limited	10,000	Sault Ste Marie.
The Seaman-Kent Company, Limited	100,000	Meaford.
The Supply Company of Ottawa, Limited	10,000	Ottawa.
The Saint Lawrence Terminal Company, Limited	100,000	Hamilton.
The Saint Thomas Acetylene Manufacturing Company, Limited	100,000	Saint Thomas.
The Saint Lawrence River Electric Company, Limited	200,000	Iroquois.
The S. Knetchel Wood Turning and Furniture Company, Limited	150,000	Southampton.
Sovereign Manufacturing Company, Limited	100,000	Toronto.
The Sunrise Mining Company, Limited	1,500,000	Sault Ste Marie.
The Sturgeon Falls Advertiser, Limited	5,000	Sturgeon Falls.
The Sylvester Manufacturing Company, Limited	650,000	Lindsay.
Superior Portland Cement Company, Limited	500,000	Toronto.
The Skeleton Lake Lumber Company, Limited	40,000	Toronto.
The Saugeen Mineral Water Company, Limited	200,000	Southampton.
The Springbank Mineral Springs, Limited	800,000	St. Catharines.
The Standard Printing Company Huntsville, Limited	5,000	Huntsville.
The Surprise Manufacturing Company, Limited	10,000	Toronto.
The Sanderson-Harold Company, Limited	40,000	Paris.
The Standard Meter Company, Limited	60,000	Toronto.
The Sarnia Dairy and Produce Company, Limited	5,000	Sarnia.
The Standard Ideal Sanitary Company, Limited	100,000	Port Hope.
The St. Joe Island Lumber Company, Limited	75,000	Sault Ste Marie.
Saint Thomas Athletic Club, Limited	10,000	Saint Thomas.
The Saugeen Oil Company, Limited	10,000	Walkerton.
The Silicate Brick Company of Ottawa, Limited	50,000	Ottawa.
T.		
T. W. Hand Fireworks Company, Limited	85,000	Hamilton.

APPENDIX II.—List of Charters issued during the year 1902.

Name of Company.	Capital.	Head Office.
The Toilet Publishing Company, Limited	5,000	Toronto
Taylor and Pringle Company, Limited	150,000	Owen Sound.
Thomas Todd and Son, Limited	25,000	Galt.
Treble's, Limited	40,000	Hamilton.
The Toronto Pharmacal Company, Limited	40,000	Toronto.
Thomas Brothers, Limited	250,000	St. Thomas.
Trussler Brothers, Limited	50,000	Trout Creek.
The Toronto Junction Lumber Company, Limited	25,000	Toronto Junction
The Thomson Drug Company, Limited	40,000	Sault Ste Marie.
Toronto Contracting and Paving Company, Limited	40,000	Toronto.
Thornton and Douglas, Limited	60,000	Stratford.
The Talbot Oil and Gas Company, Limited	40,000	Dutton.
Toronto Fire Brick Company, Limited	60,000	Toronto.
T. J. Fair and Company, Limited	90,000	Brantford.
Tower Canadian Oiled Clothing Company, Limited	100,000	Toronto.
U.		
Union Petroleum Company of Canada, Limited	25,000	Toronto.
The Union Baking Company, Limited	150,000	Toronto.
The Union Oil Company of Canada, Limited	600,000	Petrolea.
United Typewriter Company, Limited	250,000	Toronto.
V.		
Volcanic Reef Company, Limited	1,000,000	Toronto.
Vulcan Reduction and Refining Company	500,000	Toronto.
W.		
The Wiarton Beet Sugar Manufacturing Company, Limited (Re-incorporation)	500,000	Wiarton.
Wickett and Craig, Limited	250,000	Toronto.
W. R. Johnston and Company, Limited	750,000	Toronto.
The William Wyndham Company, Limited	70,000	Hamilton.
The Wingham Trading Company, Limited	30,000	Wingham.
The Wilkinson Plough Company, Limited	250,000	Toronto Junction
W. G. Dunn and Company, Limited	20,000	Hamilton.
The Western Real Estate Exchange, Limited	20,000	London.
The Western Foundry Company, Limited	50,000	Wingham.
The Wellington Packing Company, Limited	25,000	Wellington.
Williams, Limited	40,000	Galt.
W. H. Dwyer Company, Limited	50,000	Ottawa.
The Weston Shoe Company, Limited	40,000	Campbellford.
The Warren Bituminous Paving Company of Ontario, Limited	150,000	Toronto.
W. S. Bryers-Barkwell Company, Limited	50,000	London.
Woodworkers, Limited	20,000	Wiarton.
The Western Dairy and Provision Company of Saint Thomas, Limited	50,000	Saint Thomas.
The Walkerville Water Company, Limited	100,000	Walkerville.
The Williams Piano Company, Limited	250,000	Oshawa.
Z.		
The Zanzibar Paint Company, Limited	100,000	Toronto.

APPENDIX III. List of Supplementary Letters Patent increasing the Capital Stock of Incorporated Companies during 1902.

Name of Company.	Date.	From	To
Bailey Cutlery Company of Brantford, Limited	26th December, 1901.	40,000	200,000
Chandler and Massey, Limited	4th April, 1902	100,000	250,000
Collingwood Ship Building Company, Limited	18th April, 1902.	200,000	2,000,000
The Cloverdale Butter and Cheese Manufacturing Company of Hillier, Limited	30th April, 1902	2,000	5,000
The Canada Radiator Company, Limited	28th June, 1902.	150,000	250,000
The Canadian Oil Refining Company, Limited	12th November, 1902	100,000	200,000
The Canadian Electro-Chemical Company, Limited	19th November, 1902.	100,000	300,000
The Frost and Wood Company, Limited	21st March, 1902	800,000	2,000,000
The Gee Electrical Engineer Company, Limited	14th February, 1902	10,000	50,000
The George N. Morang and Company, Limited	15th October, 1902	95,000	125,000
The Grey and Bruce Portland Cement Company of Shallow Lake, Limited	19th November, 1902	199,000	500,000
The Hamilton Electric Light and Cataract Power Company, Limited	22nd February, 1902	3,750,000	4,000,000
The Hepworth Manufacturi g Company, Limited.	30th September, 1902	24,000	50,000
The Laurentian Mining Company, Limited	19th December, 1902.	1,000,000	2,000,000
The Lakefield Portland Cement Company, Limited	10th July, 1902.	500,000	1,000,000
The Midland Navigation Company, Limited	13th March, 1902.	200,000	400,000
The Maple Leaf Woollen Mills Company	30th April, 1902.	40,000	100,000
McDonald Manufacturing Company, Limited.	4th June, 1902.	125,000	250,000
The Madawaska Club, Limited	25th June, 1902.	2,000	20,000
The McKinnon Dash and Metal Works, Limited	26th November, 1902.	400,000	700,000
The Ottawa Printing Company, Limited	17th October, 1902.	10,000	40,000
The Ontario Slocan Lumber Company, Limited	22nd October, 1902.	40,000	100,000
The Ottawa Milling Company, Limited	17th December, 1902.	40,000	99,000
P. R. Cumming Manufacturing Company, Limited	25th June, 1902	50,000	100,000
The Sun Printing Company of Toronto, Limited	21st March, 1902	30,000	50,000
The Smart Eby Machine Company, Limited	30th April, 1902.	5,000	50,000
The Sao Paulo Tramway Light and Power Company, Limited	15th May, 1902.	6,000,000	7,000,000
The Sultana-Ophir Mining Company, Limited	17th December, 1902	10,000	150,000
The Toronto Roller Bearing Company	24th April, 1902.	40,000	100,000
The Tavistock Milling Company, Limited	24th April, 1902.	20,000	60,000
The J. Coulter Company of Toronto, Limited	26th March, 1902.	10,000	50,000
The Tuckett Cigar Company, Limited	25th June, 1902.	75,000	150,000
The Wallaceburg Sugar Company, Limited	16th January, 1902	300,000	350,000
The Woodstock Waggon and Manufacturing Company, Limited	5th July, 1902.	25,000	100,000

APPENDIX IV. List of Companies whose powers were extended by Supplementary Letters during 1902.

Name of Company.	Date.
The Anglo-American Copper Mining Company of Parry Sound, Limited	29th January, 1902
The Burgess Gas Process Company, Limited	13th January, 1902
The Galt, Preston and Hespeler Street Railway Company, Limited	13th June, 1902
Gunns' Limited	26th November, 1902
International Transit Company, Limited	12th August, 1902
The Marsh Medicine Company, Limited	26th February, 1902
The Nasmith Company of Toronto, Limited	12th February, 1902
The St. Lawrence Terminal Company, Limited	21st October, 1902
The Toronto Steel Clad Bath and Metal Company, Limited	15th May, 1902

APPENDIX V.—List of Orders of His Honour the Lieutenant-Governor in Council Changing the Names of Incorporated Companies in 1902.

From	To	Date.
The Equitable Mining and Development Company, Limited.	Anglo-Canadian Steel and Iron Company, Limited.	18th March, 1902
The Bailey Cutlery Company of Brantford, Limited.	Bailey Cutlery Company, Limited	30th December, 1901
The Ontario Farmers Cordage Company, Limited.	The Brantford Cordage Company, Limited.	24th November, 1902
The Morden Manufacturing Company, Limited.	Canada Cabinet Company, Limited.	15th October, 1902
The Hugh McLean Company, Limited	The Dyas Publishing Company, Limited.	29th July, 1902
The Economical Gas Apparatus Construction Company of Toronto, Limited.	The Economical Gas Apparatus Construction Company, Limited.	31st May, 1902
The Homewood Retreat Association of Guelph, Ontario.	The Homewood Sanitarium of Guelph, Ontario, Limited.	14th March, 1902
The Jubilee Grate Bar Company, Limited.	The Hydro-Carbon Engine Company, Limited.	26th March, 1902
The Hahn Brass Company of New Hamburgh, Limited.	The Hahn Brass Company, Limited ..	4th April, 1902
The McLachlan Electric and Gasoline Motor Company, Limited.	The McLachlan Gasoline Engine Company, Limited.	26th February, 1902
The Marsh Medicine Company, Limited.	The Marsh Manufacturing Company, Limited.	28th February, 1902
The Nasmith Company of Toronto, Limited.	The Nasmith Company, Limited.....	31st May, 1902
The Ontario Works Building Company, Limited.	The Niagara Construction Company, Limited.	24th September 1902
The Queen City Agency Company, Limited.	Provincial Agency Company, Limited.	26th December, 1902
The Robert McCausland Stained Glass Company of Toronto, Limited.	Robert McCausland, Limited	22nd February, 1902
The Toronto Mining Exchange, Limited.	The Standard Stock and Mining Exchange, Limited.	31st December, 1901
The Aurora Mining and Development Company of Ontario, Limited.	The Saint Lawrence Gold Mining Company, Limited.	31st December, 1901
The S. Hadley Lumber Company of Chatham, Limited.	The S. Hadley Lumber Company, Limited.	15th May, 1902
Smart-Eby Machine Company, Limited.	Smart-Turner Machine Company, Limited.	24th September, 1902

APPENDIX VI.—List of Orders of His Honour the Lieutenant-Governor in Council accepting the Surrender of the Charters of Companies in 1902.

Name of Company.	Date.
The Gould Lake Mining Company, Limited	23rd January, 1902
The Grip Printing and Publishing Company of Toronto, Limited	23rd January, 1902
The John Abell Engine and Machine Company, Limited	20th October, 1902
The Nott Cycle and Motor Company of St. Catharines, Limited.	27th August, 1902
The Otto Higel Company, Limited.....	3rd October, 1902
The Plattsville Milling Company, Limited.....	24th January, 1902
The Provincial Tract Company of Ontario, Limited...	16th July, 1902
The Robson Elevator Company of Ayr, Limited..	8th May, 1902

APPENDIX VII.—List of Companies whose Capital Stock was decreased during the year 1902.

Name of Company.	Date.	From	To
Canada Woollen Mills, Limited	30th April	2,000,000	1,954,000

APPENDIX VIII. List of Extra Provincial Companies to which were issued during 1902 Licenses under 63 Vic., Cap. 24, and of the fees paid therefor.

Name of Company.	How Incorporated.	Attorney.	Fee.
A.			$ c.
The American Tobacco Company of Canada, Limited	Dominion	William H. Orchards	50 00
The American Tire Company, Limited	Dominion	Harry P. Davies	25 00
The American Thread Company	New Jersey	George Somerville	100 00
American Bridge Company of New York	New York	F. C. McMath	160 00
American Cereal Company	Ohio	Alexander P. McDonald	260 00
The Apple and Produce Cold Storage Company, Limited	Dominion	Evan Jones	25 00
B.			
Battle Creek Pure Food Company, Limited	Michigan	Wesley B. Phillips	100 00
The Booklovers' Library, Limited	Dominion	Edward J. Boyd	25 00
The Black Bay Mining Company, Limited	Arizona	F. R Moriss	385 00
Borden's Condensed Milk Company	New Jersey	John B. Jackson	160 00
Berry Brothers, Limited	Michigan	A. H. Clarke	100 00
C.			
The Cowichan Lumber Company, Limited	Dominion	Mossom M. Boyd, Bobcaygeon	50 00
The Centre Star Mining Company, Limited	British Columbia	T. G. Blackstock	100 00
The Canadian Spool Cotton Company	Quebec	George Somerville	185 00
Crucible Steel Company of America, Limited	New Jersey	Edgar B. Walker	100 00
Consumers' Electric Company, Limited	Dominion	Russell Blackburn	50 00
Chicago Fire Proof Covering Company	Illinois	B. H. Montgomery	50 00
Canadian Oil Fields, Limited	Great Britain	A. F. Hood	260 00
Chicago Pneumatic Tool Company	New Jersey	John B. Wilson	100 00
The Commercial Acetylene Company	New Jersey	John R. Arnoldi	100 00
The Canadian Woollen Manufacturing Company, Limited	Dominion	Alexander Alexander	50 00
The Corporation of Colonial and General Agencies, Limited	Imperial	Edward Still	50 00
C. W. Lindsay, Limited	Dominion	John Raper	50 00
D.			
The Dominion Paving and Contracting Company, Limited	Dominion	Toronto—Darwin L. Van Vlack	25 00
Dr. Shoop Family Medicine Company	Wisconsin	William F. Schunke	100 00
The Dominion Lands Colonization Company	Dominion	D. R. Wilkie	50 00
The Dominion Compressed Air Dustless House Cleaning Company, Limited	Dominion	John Bryce Kay	25 00
E.			
Edwin S. Hartwell Lumber Company	Illinois	Charles R. Shaw	160 00
F.			
The Flint Lake Gold Company, Limited	Arizona	G. H. Draper	160 00

APPENDIX VIII.—List of Extra Provincial Companies.—*Continued.*

Name of Company.	How Incorporated.	Attorney.	Fee.
			$ c.
G.			
Galena-Signal Oil Company	Pennsylvania	Louis L. Miller	185 00
Gordon, Ironside and Fares Company	Dominion	Charles A. Anderson	50 00
Gold Reef Mining Company, Limited, (Licensed)	Michigan	Allan McLennan	310 00
The Governor and Company of Adventurers of England Trading into Hudson's Bay	By Royal Charter granted by King Charles II, 2nd May, 1670	LeightonGoldieMcCarthy	100 00
I.			
The International Registry Company	New York	William U. Stacey	100 00
International Harvester Company of America	Wisconsin	J. A. Publow	100 00
J.			
The J. M. Lavoie Company, Limited	Dominion	Joseph U. Vincent	25 00
L.			
Lamson Consolidated Store Service Company	New Jersey	Herbert L. Dunn	100 00
Louden Machinery Company	Iowa	Hugh B. Callendar	100 00
The Lake Erie Excursion Company	New York	John E. Rebstock	100 00
London-Aylmer and North Shore Electric Railway Company	New York	W. E. Stevens	260 00
M.			
Moneyweight Scale Company	Illinois	Leslie Alex. Davidson	100 00
McAlpin Tobacco Company	New York	William A. McAlpin	110 00
Michigan Ammonia Works	Michigan	George Ritchie	50 00
McKellar Island Silver Mining Company	Michigan	Noble A. Bartlet	100 00
Malta Vita Pure Food Company	New Jersey	W. B. Phillips	110 00
N.			
The Natural Food Company	New York	John Hewitt	100 00
The Northern Light Mines Company	Arizona	G. H. Draper	110 00
The Novi Modi Costume Company	Quebec	Henry C. Boulter	135 00
Niagara Falls Concentrating Company	New York	A. M. Colquhoun	100 00
O.			
Osborne Company	New Jersey	David Henderson	100 00
The Ontario Corundum Company, Limited	Dominion	Robert George Code	25 00
The Ogilvie Flour Mills Company, Limited	Dominion	John F. McLaren	50 00
P.			
Pittsburgh Coal Company	New Jersey	John G. Mullen	100 00
The Philip Carey Manufacturing Company	Ohio	Orill Allen Cole	185 00
Pickand's Iron Company	Michigan	Walter Gow	100 00
The Poulin Lumber Company, Limited	Dominion	J. U. Vincent	25 25
R.			
Rainy River Navigation Company	Canada	G. A. Graham	50 00
The Read Lumber Company, Limited	Dominion	G. H. Perley	50 00
Rat Portage Mining and Development Company	Arizona	C. G. Pennock	160 00

APPENDIX VIII.—List of Extra-Provincial Companies.—*Continued.*

Name of Company.	How incorporated.	Attorney.	Fee.
S.			$ c.
The Sault Ste. Marie Bridge Company	Dominion	Ernest G. Henderson	50 00
The St. Eugene Consolidated Mining Company, Limited	British Columbia	T. G. Blackstock	100 00
Shea's Yonge Street Theater Company.	New York	Jeremiah Shea	100 00
The Soo Prospecting and Development Company	Michigan	John McKay	100 00
The Syndicate No. 1, Limited	Great Britain	Arthur C. Boyce	100 00
St. Jacob's Oil, Limited	Great Britain	E. H. Woolly	100 00
The Summit Lake Gold Mining Company of Ontario, Limited	Arizona	Alexander F. MacLaren.	160 00
T.			
Taylor-Forbes Company, Limited	Dominion	John McPherson Taylor.	50 00
U.			
United States Gold Mining Company.	Maine	William McBrady	385 00
V.			
Vienna Pressed Yeast Company	New York	William Martin	50 00
W.			
The War Eagle Consolidated Mining and Development Company, Limited	British Columbia.	T. G. Blackstock	100 00
The Welding Compound Company	New Jersey	Isaac Henry Culp	50 00

APPENDIX IX.

Synopsis of Returns to Addresses and Orders of the House presented to the Legislative Assembly during the Session of 1902.

No.	Sessional Papers No.	Subject.	Mover.
1	53	Shewing in what Municipalities and Unorganized Districts Smallpox appeared since January 1, 1900	Mr. Smith.
2	55	Respecting the amount received from private parties *re* support of lunatics during 1901	Mr. Hoyle.
3	57	Number of fruit trees infected by San José scale, etc	Mr. Jessop.
4	58	Bonuses voted to Railways during the years 1898, '99, 1900, '01	Mr. Joynt.
5	59	Number of persons confined in County Gaols as Indigents, also number as Insane	Dr. Barr.
6	60	Appointees under Fishery Department over Rideau waters, names of overseers, number of Licenses, etc	Mr. Joynt.
7	61	Names of Inspectors of Licenses, Districts and Salaries paid up to 30th April, 1901	Dr. Barr.
8	65	Copies of Orders in Council, correspondence and telegrams between the Government and the MacNab Lumbering Co	Mr. Fox.
9	66	Copies of all correspondence relating to the export of Gas	Mr. Whitney.
10	70	Number of visiting Committees appointed *re* Neglected and Dependent Children	Mr. Smith.
11	73	Number of Cold Storage Associations and the amount paid to each under the Act of 1900, etc	Mr. McLaughlin.
12	74	Report *re* Temiskaming Railway (proposed)	Mr. Beatty (Leeds).
13	75	Correspondence *re* the overflow of the Mad and Nottawasaga Rivers	Mr. Thompson.

APPENDIX X.

PROVINCIAL REGISTRAR'S OFFICE,
TORONTO, 21st January, 1903.

To the Honourable
JAMES ROBERT STRATTON, M.P.P.,
Registrar of the Province of Ontario, etc, etc., etc.

SIR,—The undersigned begs leave to submit the following table as showing in a condensed form the services rendered by the Provincial Registrar's Office during the year 1902.

Documents.	Recorded and Compared.
Special Deeds and Commissions	17
Special Charters of Incorporation	4
Charters of Incorporation	451
Supplementary Charters of Incorporation	43
Letters Patent for Licensing Companies	75
Commissions under Great Seal	168
Commissions under Privy Seal	66
Commissions to License Commissioners	101
Commissions to License Inspectors	3
Warrants removing Lunatics	352
Warrants discharging Lunatics	84
Crown Land Patents	1,084
Mining Leases	282
Certificates of Incorporation of Friendly Societies	11
Copies and Certificates of Patents	44
Bonds and Covenants	28
Election Writs, Legislative Assembly	100
" Referendum	99

In addition to the foregoing an annual return of all bonds and securities recorded in this Office is prepared for the Legislative Assembly, and a quarterly return of all the lands is also sent to the Registrars of each County in which patents have issued, giving description of land patented, name of patentee, and also notice of all cancellations and surrenders of patents. A large amount of work is also done in searching old records of land patents and charters, commissions and other documents, and examining and reporting as to fitness of names of charters applied for, and certifying to and passing notaries' certificates.

JOHN F. C. USSHER,
Deputy Registrar.

THIRTY-FIFTH ANNUAL REPORT

OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES

UPON THE

LUNATIC AND IDIOT ASYLUMS

OF THE

PROVINCE OF ONTARIO

BEING FOR THE YEAR ENDING 30TH SEPTEMBER,

1902.

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO.

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1903.

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TORONTO.

OFFICE OF THE
INSPECTOR OF PRISONS AND PUBLIC CHARITIES, ONTARIO.

PARLIAMENT BUILDINGS, TORONTO, November, 1902.

SIR,—I have the honor to transmit herewith, to be presented to His Honor the Lieutenant-Governor, the Thirty-fifth Annual Report upon the Lunatic and Idiot Asylums for Ontario, being for the official year ending 30th September, 1902.

I have the honor to be, Sir,

Your obedient servant,

R. CHRISTIE,
Inspector.

THE HONORABLE J. R. STRATTON, M.P.P.,
Provincial Secretary of the Province of Ontario,
Toronto.

PARLIAMENT BUILDINGS,
TORONTO, November, 1902.

To the Honorable SIR OLIVER MOWAT, *Knight Commander of the Order of St. Michael and St. George, Member of the King's Privy Council for Canada, and Lieutenant-Governor of the Province of Ontario.*

MAY IT PLEASE YOUR HONOR:

I beg to submit herewith the Thirty-fifth Annual Report upon the Lunatic and Idiot Asylums of Ontario, being for the official year ending on the 30th September, 1902.

I have the honor to be,

Your Honor's most obedient servant,

R. CHRISTIE,
Inspector.

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THIRTY-FIFTH ANNUAL REPORT UPON THE ASYLUMS FOR THE INSANE AND IDIOTIC.

In submitting the annual report of the Asylums of the Province for the past year, it is gratifying to note that the general service has not been interrupted by any adverse occurrence interfering with the usual work necessary in caring for the insane in charge.

The sanitary condition of the several asylums has proved to be good, and the health prevailing has been undisturbed by the prevalence of any epidemic or infectious ailment.

ACCOMMODATION.

On account, however, of the constantly increasing number of the insane requiring asylum treatment or care, the problem of available accommodation and the prompt admission of patients, have been difficult matters to deal with during the year under report. While it has been quite obvious that in many cases admission has been awarded to patients whose mental ailments could not be relieved by asylum treatment, it is, nevertheless, true that admissions in all cases have been awarded upon evidence alone of mental defect so pronounced in character as to indicate the necessity for their care and oversight. It is equally, apparent, however, that owing to the admission and retention of all classes of dements in the institutions, the asylum populations are largely increased, and that many persons now in charge could be equally well cared for in well-ordered Houses of Industry, or wards of such institutions specially set apart for their accommodation.

That a large number of such classes of the chronic and mentally infirm will always be dependent on the State for shelter and protection, on account of the inability of their relatives or friends to provide for them is beyond doubt, and it is certain that the only policy is to assume that their care is a public trust, to be arranged for to the best advantage of the community at large.

Owing to the largely augmented number of the insane population to be provided for in all communities where supervision is held to be either wholly, or in part only, a duty devolving on the State, the question of what system to adopt has of late years been freely discussed ,and two plans have been tried in American States. The advocates for the entire control and administration of all matters connected with the care of the insane solely by the Government, maintain that the work is more systematically arranged , that more thorough, and in all respects better, supervision can be had, and that consequently the treatment of the patients in all cases is superior to what could be effected by a sectional and divided authority. It is urged that the establishment of large asylums, which must necessarily be provided, if under Government supervision, is a benefit to all classes of the insane, irrespective of their condition mentally; that a better classification can be arranged and adjusted from time to time, as may be found necessary ; that a great saving is effected by retaining the quiet and able-bodied patients in large institutions, for domestic and other necessary work, which, in event of their being removed, would have to be performed by paid service; that the entire service can be maintained and administered more economically than under any separate system of jurisdiction, and that the maintenance outlay is more evenly distributed over the country at large.

On the other hand, the opinion of a large number of persons well qualified to judge in such matters is that such a classification should be arranged as would compel counties to provide for harmless and chronic patients, who require only such ordinary care and attention as shall ensure their safe keeping and comfort. It is alleged that by such an arrangement greater economy would be effected, especially in the saving of fares, and necessary expenditure in transportation of patients to large institutions at a distance, in many cases remote from their homes; also that such imbeciles would be benefited by being domiciled in quiet homes, where their surroundings would be more favorable than can be had among the excited classes; that quiet, able-bodied persons could be employed to better advantage, and, if at such industrial occupations as they are fitted for, might be made largely self-sustaining, at a considerably reduced expenditure for structural accommodation, and also for administration for carrying on the Institution work. And that by the adoption of such a plan the most objectionable feature of the present system of commitment to the Common Goals of the Province could be abandoned.

There are, no doubt, many other substantial reasons which might be advanced for the limitation of the present system, by which all classes of the mentally infirm have been admitted to the Provincial Asylums, but none greater or of more importance than the necessity for such a rearrangement as would satisfactorily provide for the merely infirm, and thus relieve the over-crowded asylums, and afford room for the care of excited and urgent cases requiring treatment.

With a view of indicating what may be necessary in the future, the following summary of the average annual admissions, the daily average population in residence, and the average increase in the daily residence of the insane and idiotic, is given:

	Average annual admissions.	Daily average population lunatics and idiots.	Average increase in daily residence each decade.
Decade from 1872 to 1881	449	1,921	260 from Confed. to 1872.
do 1882 to 1891	637	3,168	124 from 1872 to 1881.
do 1892 to 1901	804	4,730	156 from 1882 to 1891.
Compared with 1902	1,016	5,366	139 from 1892 to 1901

Irrespective of the system adopted, it is important to estimate as accurately as possible the number of all classes of the insane and idiotic to be maintained in the Province; and from the census returns of 1901, which are no doubt most reliable, the total number enumerated in the classes referred to is 7,511. At the close of the official year ending the 30th of September, 1901, the number of the insane and idiotic officially known to this department was 5,880, or a difference of 1631, who were unreported or unprovided for in the institutions. That this number of outlying persons of the classes referred to is, as nearly as possible, correct, is beyond doubt, as the instructions given to the enumerators in making their records were clear and well defined, as follows:—"That it was not necessary in making their record, that the degree of infirmity should be absolute or total, but

sufficiently marked in any one of the classes as to have reached the stage of incapacity."

It would be a difficult matter to estimate the number of those not domiciled in the institutions, who might, or who would have been cared for as wards of the public in event of provision having been available for them, but it is evident that a large proportion may be classed as quiet, or harmless dements, whose imbecility does not prevent their being retained with relatives or friends in their private homes. At the close of the past year, ending 30th of September, 1902, the total number of the insane known to the department was 6,053, or an increase of 173 over the former year. This number represents about the average annual increase, and is fairly in ratio with the annual increase of the population of the Institutions.

From the foregoing it is evident that there is no prospect of a reduced number of applicants, or a lessened number in residence in the near future, and the following table will show how fully occupied all the room has been in each asylum during the year.

October, 1901, to September 30, 1902.	Asylums in which there were no vacancies for the month.	Total applications.	Vacancies during the month.	Patients on probation during the month.
October	Toronto, London, Mimico	78	19	85
November	do do do Kingston, Brockville	82	9	84
December	Toronto, London, Mimico, Kingston, Brockville	95	3	102
January	Kingston, Cobourg	52	70	81
February	Toronto, Kingston	48	73	68
March	do London, Cobourg	52	41	73
April	do do	46	65	69
May	do do	46	59	84
June	do	54	55	85
July	do London	58	47	82
August	do do Hamilton	60	26	85
September	do do	58	48	68
	Average	61	43	80

It will be noted that the average number of applicants was 61, to which must be added the average number of patients returned from probation, which was 65 in the year, or an average of 5 a month. This makes the applicants, 66, for whom there were only 43 vacancies, or an average of 23 at all times during the year for whom there was no accommodation.

By reference to the tables following, beginning with page which shows the entire movements of the asylum population during the past year, it may be noted that the increase in admissions, compared with the previous year, ending 30th of September, 1901, was 219. The number admitted by certificate was 680, and by warrant 336, the one being 67 per cent. of the total, and the other 33 per cent. Up to the close of 1901 the admissions relatively had been 60 per cent. by certificate and 40 per cent. by warrant. The ratio for the current year is practically 2 by certificate to 1 by warrant.

The increased number of those admitted by certificate, when compared with those under the warrant system, is evidence of the growing aversion to resort to this system for the removal of the insane, and if ample room had been available in the Institutions when the care of patients became a necessity, fewer patients would have been committed to the County Goals as places of detention, pending removal to the Asylums.

COBOURG ASYLUM OPENING.

The increased number of patients in daily residence during 1902 was 157, and the accommodation for them was found largely in the new Asylum at Cobourg, opened on the 4th of January, 1902, when 31 patients were transfe re l from London, and a like number from Mimico Asylum. This population was added to by transfers up to the 31st of March, when this institution had in residence its full quota—144 female patients. It may be added that the opening of this Asylum did much to relieve the congested condition of the older institutions, by the removal of such patients from them as were mentally and physically fitted for asylum residence in the Cobourg Institution.

For the coming year the available room for an increase in the asylum population will be supplied by the London and Kingston Institutions, when the structural additions, now in progress, are completed; and in event of an average increase of admissions this accommodation will not be more than sufficient.

As the increasing number of the insane in the institutions may be considered as evidence of an increase of insanity, in greater proportion than the relative increase of population, it is well to observe that the numb r of admissions within any given period greatly outnumbers the discharges. For example, during the past ten years the admissions to the asylums have been 7,969, while the total discharges have been:

As recovered	2,374	7,969	Total admissions.
As improved or unimproved	938	.....	
Number died	2,494	5,806	
		2,163	

Showing that at the close of the decade, notwithstanding deaths and discharges, the population had increased by 2,163 persons, or more than 27 per cent. of the admissions.

In referring to the recoveries of the past ten years, it is interesting to observe in the following statement the average number of discharges from the Institutions during the past three decades, and the slight difference there is in the percentage of recoveries when compared with the past year:

	Average number of lunatics admitted.	Average number of recoveries.	Percentage of recoveries.
From 1872 to 1881	452	132	30%
From 1882 to 1891	523	146	28%
From 1892 to 1901	780	235	30%
Compared with 1902	959	260	27½

The uniform number of recoveries, as shown in the above table to have been recorded, for so long a period, is satisfactory, and is an evidence of the good care and undeviating efforts employed for the relief and restoration of the insane under treatment: and suggests also the following statement, covering a like number of years, showing the death rate, which also

indicates the general good health prevailing in the Institution communities collectively:

	Average daily population of lunatics.	Average annual number of deaths.	Percentage of deaths to daily population in residence.
From 1872 to 1881	1,921	123	6.4% or in ratio 1 to 15½.
From 1882 to 1891	2,965	163	5.5% do 1 to 17¾.
From 1892 to 1901	4,138	240	5.8% do 1 to 17¾.
Compared with 1902	4,712	287	6.1 do 1 to 16½.

MAINTENANCE.

During the past year the average cost of maintenance of patients, estimated upon a per capita basis, has been advanced from $120.80 in 1901 to $125.59 for the year ending 30th of September last, which is an average increase of $4.79 per annum.

It would be misleading, however, to rely upon a comparison of the expenditure, as between these years, or indeed for any single year, with a view of reaching a correct conclusion in regard to the amount required for the service, but especially in the present instance, as the expenditure during 1901 was exceptionally low, less than the average of all preceding years since the inception of the present system in 1867. The following statement is therefore submitted showing the average cost of maintenance during each decade, as compared with the past year:—

From 1867 to 1870	$140.70
From 1871 to 1880	136.09
From 1881 to 1890	132.30
From 1891 to 1901	128.71
Average during 33 1-2 years	$134.43
Compared with 1902	125.99
Comparative decrease per patient during the past year	8.44

Owing to the increased cost of nearly every staple commodity required for Institution maintenance, it would be vain to expect that the cost per capita would not be increased, and a comparison of the contract prices of some of the leading supplies will show how the maintenance outlay is affected in this way.

The average contract price for anthracite coal for the years 1899 to 1901 was $4.53 per ton, and for the past year $5.76, an increase of 27 per cent.—for the past two years the increase was 24 3-4 per cent.; the price of flour has also advanced (from 1899 1901) at the rate of 3 per cent., butter 5 per cent., and butchers' meat 10 1-3 per cent. To these quotations might be added many others, indicating the increased cost of supplies, but the single item of the increase in coal, which amounts to $26,570.73, largely exceeds the total maintenance increase for

the past year, and unless the expedient of a lower and inferior care and supervision in the Institutions was resorted to to meet the exigencies of expenditure from year to year, it follows that no absolutely fixed rules can be adopted to secure a uniform outlay.

Through constant efforts to economize in every way, without lowering the standard of the service, the extent to which the cost of maintenance for the past year has increased here is comparatively small. As evidence of this, the report of the Commissioner of Lunacy for England and Wales, issued in June last, refers to the general rise in contract prices as having increased the average weekly cost over the previous year, in the County and Borough Asylums, by no less than 11d. per head per week, or, in currency, here, $11.60 per annum; and this is by no means an isolated case; many others might be cited showing the difference in cost in consequence of the increased price of supplies.

The conclusion to be drawn, therefore, from the foregoing regarding expenditure, if present prices prevail, clearly points to the necessity for an increased appropriation on maintenance account to meet the requirements of the service, if it is to be maintained in an efficient state.

EXPENDITURE.

The total sum expended for the maintenance of the insane and idiotic in the asylums of the Province, during the past year, amounted to $659,335.37, being an increase of $35,659.37 over the previous year; of this amount $21,148.32 was expended in providing for, and maintenance of, the new Institution at Cobourg, and the balance, of $14,511.28, as already shown, was due to the purchase of supplies at increased prices.

REVENUE.

The total amount received from paying patients during the past year was $101,076.20, or an increase of $10,398.74 over the sum collected during the previous year; and the number of patients contributing has also increased from 902 to 959, or 57 more than formerly. This is 15 1/3 per cent. of the total expenditure for the insane and idiotic under charge as wards of the Province. These are gratifying results showing that the work of the year has developed financially in proportion to the increased population in charge, and also in ratio with the annually increasing expenditure or total amount of appropriation for the care of the insane.

CHANGES IN THE MEDICAL STAFF.

Dr. R. M. Bucke, who for so many years held the position of Superintendent of the London Asylum, died suddenly on the 19th February, 1902, and Dr. Thomas Reynolds, who was Assistant Superintendent of the Hamilton Asylum, died on the 9th of June, 1902. Both these gentlemen, by their long continued and faithful attention to duty, combined with a keen sense of the responsibility resting upon them, had won the entire confidence of those associated with them, and were highly appreciated for their uprightness and candor in all their official relations. Further reference is made in the reports of the Superintendents of London and Hamilton, respectively, expressing the esteem in which both gentlemen were held during their long periods in the service.

To fill the vacancy caused by the death of Dr. Bucke, Dr. G. A. MacCallum was appointed to the superintendency of London Asylum on March

3rd, 1902, and Dr. Frank Beemer, of the London Asylum staff, was transferred to the Hamilton Institution to fill the vacancy caused by the death of Dr. Reynolds. Dr. Wilson was also transferred from London to Hamilton Asylum. This left two vacancies on the London Asylum medical staff, which were filled by the transfer of Dr. R. W. Bell of the Toronto Asylum to the position formerly held by Dr. Beemer, and by the transfer of Dr. P. McNaughton, of Mimico Asylum, to the position held by Dr. Wilson. Dr. McNaughton's position at Mimico Asylum was filled by the transfer of Dr. St. Charles, of Hamilton Asylum, and the position vacated by Dr. Bell, in Toronto Asylum, was filled by the appointment of Dr. J. C. Mitchell. At the beginning of the year there was a vacancy at the Brockville Asylum, which was filled by the promotion of Dr. H. Clare, of the Orillia Asylum, and subsequently Dr. T. J. Moher was appointed in the place of Dr. Clare as Assistant Superintendent of the Orillia Asylum. There was also a change in the medical staffs at Kingston and Mimico Asylums, by the transfer of Dr. Baeber, Assistant Superintendent of Mimico, to a similar position at Kingston, his place being taken by Dr. Forster, formerly Assistant Superintendent of Kingston Asylum.

An annual review of matters connected with the asylum service is necessarily limited to some of the more important subjects relative to the history and working of the institutions. But in view of the largely increasing numbers of the afflicted classes in charge, the large amount of the revenues of the Province devoted to their maintenance, the system of providing for them, and the issues involved, and likely to radiate therefrom, it is desirable that a widely extended public knowledge of such interests should be cultivated, and no better means can be adopted to this end than by carefully perusing the reports of the several Superintendents, which are from year to year appended and which furnish an amount of practical and scientific information that cannot be obtained from any other source. These are, therefore, confidently commended to the attention of all interested in the insane and the system of providing for them.

TABLE

Showing the movements of the entire population of the

	Toronto Asylum.			London Asylum.			Kingston Asylum.			Hamilton Asylum.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Number of patients in Asylum Oct. 1, 1901	362	362	724	490	544	1,034	312	287	599	468	561	1,029
Admitted during year ended Sept. 30, 1902	64	90	154	69	84	153	45	55	100	65	81	146
Total number on Asylum registers and actually under treatment in each Asylum during the year	426	482	878	559	628	1,187	357	342	699	533	642	1,175
Discharged cured	17	30	47	29	25	54	12	17	29	21	23	44
" improved	12	11	23	7	6	13	5	9	14	6	14	20
" unimproved	10	4	14	4	1	5	1	4	5	1	6	7
" as not insane	....	....	....	....	....	....	....	..	..	....	....	.....
Total number discharged during year	39	45	84	40	32	72	18	30	48	28	43	71
Escaped	1	....	1	5	2	7	3	....	3	1	....	1
Died	33	11	44	28	34	62	17	30	47	27	17	44
Transferred from one asylum to another	...	32	32	....	33	33	....	12	12	...	42	42
Total number escaped, died, discharged and transferred during the year	73	88	161	73	101	174	38	72	110	56	102	158
Number of patients remaining in Asylum on Sept. 30, 1902	353	364	717	486	527	1,013	319	270	589	477	540	1,017

No. 1.

Asylums during the year ending September 30th, 1902.

Mimico Asylum.			Brockville Asylum.			Cobourg Asylum.			Total number of lunatics.			Orillia Asylum.			Total number of lunatics and idiots.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
303	302	605	301	312	613	....	....	....	2,236	2,368	4,604	350	302	652	2,586	2,670	5,256
64	67	131	74	56	130	....	145	145	381	578	959	29	28	57	410	606	1,016
367	369	736	375	368	743	....	145	145	2,617	2,946	5,563	379	330	709	2,996	3,276	6,272
22	21	43	20	22	42	....	1	1	121	139	260	....	....	...	121	139	260
3	3	6	1	2	3	....	...	....	34	45	79	.....	....	.....	34	45	79
1	....	1	....	1	1	.	....	....	17	16	33	9	1	10	26	17	43
....	...	....	...	....	....	....	....	....	.....	.....	....	.....	...	...	.. ...	.....	.....
26	24	50	21	25	46	....	1	1	172	200	372	9	1	10	181	201	382
1	....	1	3	1	4	....	....	...	14	3	17	1	.....	1	15	3	18
18	15	33	35	19	54	....	3	3	158	129	287	22	16	38	180	145	325
25	31	56	....	....	....	....	....	....	25	150	175	.....	.....	.....	25	150	175
70	70	140	59	45	104	....	4	4	369	482	851	32	17	49	401	499	900
297	299	596	316	323	639	....	141	141	2,248	2,464	4,712	346	313	659	2,595	2,777	5,372

TABLE

Showing the general movement and result of treatment of lunatics in the
the 1st October, 1876, to

Year ending 30th September.	Average daily number of patients in residence.			Number of lunatics admitted each year.			Number of Patients recovered in each year.			Number of patients discharged, improved and unimproved each year.		
	Male.	Female.	Total.	Male.	Female	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1877	916	903	1,819	243	184	437	82	70	152	26	29	55
1878	954	971	1,925	252	227	479	92	65	157	28	31	59
1879	1,010	1,044	2,054	231	230	461	71	64	135	42	27	69
1880	1,086	1,129	2,215	257	250	597	53	61	114	32	54	86
1881	1,164	1,160	2,354	270	232	502	84	82	166	33	38	71
Average of five years	1,026	1.047.1	2.073.4	250.6	236.6	77	76.4	68.4	44	32.2	35	68
1882	1,219	1,238	2,457		242	493	73	86	159	20	46	66
1883	1,280	1,300	2,580	253	266	519	94	80	174	36	54	90
1884	1,303	1,331	2,634	262	231	493	79	99	178	37	37	74
1885	1,384	1,360	2,708	259	198	457	88	101	189	51	39	80
1886	1,409	1,421	2,830	281	232	519	75	69	144	33	26	59
Average of five years	1.311.8	1.330	2.641.8	262.4	233.8	496.2	81.8	87	118 8	33.4	40.4	73.8
1887	1,461	1,454	2,915	219	206	425	88	89	177	31	31	62
1888	1,491	1,494	2,985	309	257	566	76	60	136	42	43	85
1889	1,582	1,585	3,167	269	245	514	85	97	182	42	47	89
1890	1,633	1,633	3,266	310	356	666	84	88	172	32	53	85
1891	1,786	1,742	3,006	465	463	928	108	91	199	42	57	99
Average of five years	1.586.2	1,581.6	3,167.8	314.4	305.4	619.8	88.2	85	173.2	37.8	46.2	84
1892	1,768	1,769	3,532	403	389	792	114	94	212	53	50	103
1893	1,818	1,856	3,674	369	384	753	98	101	199	46	60	106
1894	1,876	1,933	3,809	348	341	689	101	121	222	41	57	98
1895	1,978	2,017	3,995	487	481	968	101	106	207	32	52	84
1896	2,029	2,087	4,116	390	373	763	115	127	242	49	58	107
Average of five years	1.893 4	1.932.2	3.826	354.2	393.3	793	105.4	111.3	216.3	44.1	55.2	99.3
1897	2,097	2,157	4,254	507	398	905	107	116	223	42	52	94
1898	2,153	2,215	4,368	349	411	759	122	129	251	54	59	113
1899	2,183	2,258	4,441	368	343	711	116	145	261	48	47	95
1900	2,197	2,288	4,485	352	370	722	121	133	254	28	44	72
1901	2,236	2,368	4,604	372	370	740	145	130	275	26	31	57
Average of five years	2,193.1	2,257.1	4,450.4	389.3	379	767	122	131	253	40	46	86
1902	2,248	2,464	4,712	381	578	959	121	139	260	51	61	112

No. 2.

asylums of the province during each of the twenty-six years from the 30th September, 1902.

Number of patients who died in each year.			Percentage of recoveries upon admission.			Percentage of deaths upon number residents.			Number of lunatics remaining in asylum at the end of each year.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
67	48	115	33.74	36.08	34.78	7.31	5.31	6.32	926	933	1,859
64	50	114	36.82	28.63	32.77	6.70	5.14	5.92	989	1,014	2,003
62	49	111	30.73	27.82	29.28	6.13	4.69	5.40	1,039	1,104	2,143
69	73	142	20.62	24.40	22 48	6.35	6.46	6.41	1,133	1,165	2,298
86	58	144	31.11	35.34	33 06	7.38	4.87	6.11	1,199	1,217	2,416
69.6	55.6	125.2	30.60	30.45	30.47	6.77	5.29	6.03	1,057.2	1,086.6	2,143.8
99	67	166	29.08	35.38	32 25	8.12	5.41	6.75	1,249	1,259	2,508
92	71	163	37.15	30 07	33.52	7.18	5.46	6.31	1,274	1,820	2,594
90	64	154	30 15	40.85	36 10	6.90	4.40	5.85	1,320	1,351	2,671
86	60	146	33.97	51 01	41.35	6.38	4.41	5.39	1,356	1,349	2,705
86	55	141	26.18	29.74	27.66	6.10	3 87	4.98	1,449	1,450	2,899
90.6	63.4	15.4	31 29	37.81	44.17	6.93	47.9	5.85	1,329.6	1,345.8	2,675.4
77	66	143	40.16	43.20	41.64	5.27	4.53	4.79	1,459	1,468	2,927
90	66	156	24.59	23.34	24.02	6.04	4.42	5.22	1,554	1,556	2,110
93	65	158	31.60	39.55	35.41	5.87	4.10	4.99	1,590	1,591	3,181
91	118	209	27.50	24.61	25.56	5.57	7.22	6.46	1,652	1,666	3,318
91	99	190	23.21	19.61	21.44	5.16	5.68	5.42	1,746	1,722	3,468
88 4	82.8	171.2	29.40	39.40	29.61	5 58	5.19	5.38	1,600	1.601	3.201
125	73	198	28.36	28.19	26.76	7.07	4.12	5.44	1,776	1,811	3,587
102	108	210	25.56	26.30	26.44	5.61	5.82	5.71	1,839	1,888	3,727
106	82	189	29.02	35.45	32.22	5.65	4.29	4.96	1,913	1,947	2,860
147	118	265	10.74	22 04	21.38	7.44	5.85	6.63	1,996	2,040	4,036
139	86	225	19.22	17.90	18 53	6.85	4.02	5.47	2,027	2,091	4,118
12.4	93.3	217.3	27.78	29.57	28.06	6.52	4.82	5.64	1,910	1.955	3.865
145	117	262	21.10	29.15	24.97	6.91	5.42	6.13	2,116	2,163	4,279
130	108	238	32.09	31.46	33.04	6.04	4.87	5.45	2,152	2,236	4,388
160	132	292	31.72	23.65	27.24	7.33	5.75	6.57	2,176	2,251	4,427
136	133	269	29.09	27.82	28.42	6.23	5.81	6.02	2,198	2,300	4,498
150	107	257	25.65	28.44	27.00	6.26	4.52	5.58	2,236	2,368	4,604
13 4	12.0	26.3	27.93	28.10	28.13	6.55	5.22	5.95	2,175	2.264	4.439
158	129	287	27.41	43.09	35.25	6.95	4.97	6.00	2,248	2,464	4.712

TABLE No. 3.

Shewing the counties and places from which patients were admitted to the Asylums, and the Asylums they were assigned to.

County or place.	Number received from gaols under warrant of Lieutenant-Governor.	Number received from private houses by medical certificate.	Total number received from respective counties during the year.	Assigned to Toronto Asylum.	Assigned to London Asylum.	Assigned to Kingston Asylum.	Assigned to Hamilton Asylum.	Assigned to Mimico Asylum.	Assigned to Brockville Asylum.	Assigned to Cobourg Asylum.	Assigned to Orillia Asylum.	Total.
Algoma	2	4	6	1				5				6
Brant	3	12	15	1			10	1		1	2	15
Bruce	10	13	23		20			1			2	23
Carleton	20	24	44	5		1			34		4	44
Dufferin	2	5	7				5	2				7
Elgin	4	13	17		14					2	1	17
Essex	5	9	14		8			1	1	1	3	14
Frontenac	5	19	24			22			1		1	24
Grey	13	10	23				16		1	6		23
Haldimand	2	7	9	1			7				1	9
Haliburton												
Halton	4	8	12	2			8			2		12
Hastings	9	23	32	1		25		1	2	3		32
Huron	9	20	29	4	16		1			6	2	29
Kent	4	9	13		9		1			1	2	13
Lambton	6	10	16	1	11					3	1	16
Lanark	4	11	15			1			14			15
Leeds and Grenville	3	24	27	1					25		1	27
Lennox and Addington	1	14	15			14				1		15
Lincoln	8	5	13				9			4		13
Middlesex	21	42	63	2	48		1		1	9	2	63
Muskoka	3	5	8					6			2	8
Nipissing	1	2	3					3				3
Norfolk	2	2	4				4					4
Northumberland and Durham	8	26	34	3		13		1		17		34
Ontario	11	14	25	3				8	3	8	3	25
Oxford	5	8	13		8					4	1	13
Parry Sound	3	4	7					5			2	7
Peel	3	10	13	2				7	2	1	1	13
Perth	10	12	22		16			1		3	2	22
Peterborough	9	13	22	1				10	3	8		22
Prescott and Russell	5	4	9						9			9
Prince Edward		4	4			4						4
Rainy River	4	1	5					5				5
Renfrew	2	17	19	1		16				1	1	19
Simcoe	8	15	33	1				20		9	3	33
Stormont, Dundas and Glengarry	7	16	23						20	3		23
Thunder Bay	1	2	3					2	1			3
Victoria	7	12	19	2				11	1	4	1	19
Waterloo	1	10	11	3			7				1	11
Welland	6	10	16			1	15					16
Wellington	5	20	25	1	2	1	13			5	3	25
Wentworth	13	43	56	1			43			8	4	56
York	87	136	223	117	1	2	6	41	12	33	11	223
Not classed	1	1	2							2		2
Total	336	680	1,016	154	153	100	146	131	130	145	57	1,016

TABLE No. 4.

Shewing the counties and districts from which the entire number of patients admitted to the asylums have been received, including the admissions of the present year; also the counties and districts from which the patients remaining in residence the 30th September, 1902, were originally admitted.

Counties and places.	Admissions of the year.	Total admissions.	Patients in residence 30th September, 1902.								
			Toronto Asylum.	London Asylum.	Kingston Asylum.	Hamilton Asylum.	Mimico Asylum.	Brockville Asylum.	Cobourg Asylum.	Orillia Asylum.	Total.
Algoma	6	83	4	1	.....	4	13	.....	.....	6	28
Brant	15	757	4	4	.....	74	4	.....	1	11	98
Bruce	23	463	4	90	.....	4	3	4	.....	17	122
Carleton	44	865	10	1	64	2	.....	133	.....	18	228
Dufferin	7	431	1	.....	.....	21	4	.....	.....	4	30
Elgin	17	538	2	79	.....	2	2	4	2	5	96
Essex	14	477	1	72	1	1	2	4	1	18	100
Frontenac	24	958	2	.....	127	6	2	12	.....	24	173
Grey	23	525	13	2	1	87	15	3	6	18	145
Haldimand	9	400	.....	1	.....	45	3	1	.....	7	57
Haliburton	.....	21	.....	.....	.....	.....	.....	.....	.....	.....	.....
Halton	12	325	9	.....	.....	40	1	1	2	7	60
Hastings	32	620	8	1	69	.....	8	24	3	17	130
Huron	29	677	7	112	.....	3	2	2	6	16	148
Kent	13	470	1	85	.....	3	2	5	1	14	111
Lambton	16	603	2	104	.....	1	3	5	3	15	133
Lanark	15	485	2	.....	34	.....	.....	41	.....	4	81
Leeds and Grenville	27	752	5	.....	23	1	.....	80	.....	16	125
Lennox and Addington	15	350	1	.....	50	1	.....	7	1	15	75
Lincoln	13	465	6	.....	.....	52	1	3	4	2	68
Middlesex	63	1,497	2	268	1	4	5	17	8	37	342
Muskoka	8	100	5	.....	1	2	9	.....	.....	11	28
Nipissing	3	44	2	.....	.....	2	16	1	.....	1	22
Norfolk	4	308	.....	1	1	52	3	2	.....	8	67
Northumberland and Durham	34	995	36	.....	53	2	12	15	15	12	155
Ontario	25	618	21	1	1	5	55	8	8	15	114
Oxford	13	673	4	82	1	9	5	5	4	16	126
Parry Sound	7	56	1	.....	.....	4	14	1	.....	5	26
Peel	13	393	16	.....	.....	8	28	3	1	9	65
Perth	22	528	2	86	.....	6	4	5	3	9	115
Peterborough	22	381	14	.....	3	2	44	6	8	9	87
Prescott and Russell	9	219	.....	.....	8	.....	.....	45	.....	2	55
Prince Edward	4	211	.....	.....	26	.....	1	1	.....	5	33
Rainy River	5	17	.....	.....	.....	1	12	9	.....	.....	22
Renfrew	19	273	2	.....	53	.....	.....	.....	1	6	62
Simcoe	33	993	15	2	1	86	65	8	8	49	234
Stormont, Dundas and Glengarry	23	666	2	.....	44	1	.....	88	3	14	152
Thunder Bay	3	34	3	.....	1	1	6	2	.....	.....	13
Victoria	19	374	15	1	2	3	51	7	4	8	91
Waterloo	11	432	6	6	1	66	4	2	.....	16	101
Welland	16	356	5	.....	1	70	1	.....	.....	5	82
Wellington	25	754	11	4	1	110	1	4	5	14	150
Wentworth	56	1,395	9	2	3	188	3	3	8	29	245
York	223	4,780	460	6	12	47	191	65	33	142	956
Not classed	2	503	4	2	6	.....	.....	13	2	3	30
Total	1,016	26,859	717	1,013	589	1,017	596	639	141	659	5,372

TABLE No. 5.

Shewing the length of time Lunatics received into the Asylum during the year had been insane prior to admission.

Duration of insanity prior to admission.	Toronto Asylum.	London Asylum.	Kingston Asylum.	Hamilton Asylum.	Mimico Asylum.	Brockville Asylum.	Cobourg Asylum.	Total.
Under 1 month	32	27	26	15	21	13	.....	134
From 1 to 2 months	22	18	8	19	16	16	.....	99
" 2 " 3 "	12	16	5	9	12	17	.....	71
" 3 " 4 "	18	13	4	7	9	10	.....	61
" 4 " 5 "	7	4	1	8	7	4	.....	31
" 5 " 6 "	1	5	.....	5	7	5	.....	23
" 6 " 7 "	7	5	5	5	6	5	1	34
" 7 " 8 "	1	3	3	1	3	3	.....	14
" 8 " 9 "	1	1	1	4	3	1	.....	11
" 9 " 10 "	3	.....	1	6	2	1	.....	13
" 10 " 11 "	.....	1	.....	1	.....	1	1	4
" 11 " 12 "	.....	1	4	1	9	4	.....	19
" 12 " 18 "	8	10	7	8	9	1	5	48
" 18 months to 2 years	2	3	.....	3	8	2	1	19
" 2 to 3 years	10	10	6	16	6	3	3	54
" 3 " 4 "	7	6	2	7	5	5	.....	32
" 4 " 5 "	5	4	1	3	1	1	5	20
" 5 " 6 "	7	5	2	9	.....	3	5	31
" 6 " 7 "	2	2	1	1	.....	2	2	10
" 7 " 8 "	1	2	1	1	.....	2	6	13
" 8 " 9 "	.....	2	.....	.....	.....	4	7	13
" 9 " 10 "	.....	.....	3	.....	1	12	3	19
" 10 " 15 "	2	6	3	4	2	10	35	62
" 15 " 20 "	1	2	3	2	1	2	18	29
" 20 years and upwards	5	1	13	3	3	3	53	81
Unknown	.....	6	.....	8	.....	.....	.....	14
Totals	154	153	100	146	131	130	145	959

TABLE No. 6.

Shewing the length of residence of patients remaining in the Asylums on the 30th September, 1902.

Length of Residence.	Toronto Asylum.	London Asylum.	Kingston Asylum.	Hamilton Asylum.	Mimico Asylum.	Brockville Asylum.	Cobourg Asylum.	Orillia Asylum.	Total.
Under 1 month	17	10	8	14	11	11	.....	3	74
From 1 to 2 months	6	9	8	6	14	7	.....	5	55
" 2 " 3 "	12	8	9	15	9	9	....	2	64
" 3 " 4 "	15	9	7	7	10	6	.....	7	61
" 4 " 5 "	5	9	5	9	10	11	.....	4	53
" 5 " 6 "	3	16	5	6	13	31	1	4	79
" 6 " 7 "	9	10	7	15	11	5	12	6	75
" 7 " 8 "	16	9	10	6	4	3	40	2	90
" 8 " 9 "	4	21	3	6	16	3	88	7	148
" 9 " 10 "	6	5	3	8	5	5	.....	6	38
" 10 " 11 "	3	5	4	4	5	11	.....	10	42
" 11 " 12 "	6	7	2	12	3	3	.....	1	34
" 12 " 18 "	27	33	30	37	27	25	.....	23	202
" 18 months to 2 years	13	31	17	25	39	46	.....	26	197
" 2 to 3 years	52	59	23	46	46	65	.....	34	319
" 3 " 4 "	35	55	39	63	36	25	.....	53	306
" 4 " 5 "	46	41	31	51	27	67	.....	36	299
" 5 " 6 "	43	52	19	57	25	121	.....	46	363
" 6 " 7 "	26	45	17	45	24	80	.....	43	280
" 7 " 8 "	38	36	47	33	53	105	.....	28	340
" 8 " 9 "	27	33	19	47	22	.....	.....	8	156
" 9 " 10 "	40	57	30	35	19	.....	.....	42	223
" 10 " 15 "	118	151	96	243	167	.....	.....	145	920
" 15 " 20 "	49	113	75	142	.. .	....	.....	52	431
" 20 years and upwards	101	189	75	85	.....	.....	.....	66	516
Totals	717	1013	589	1017	596	639	141	659	5372

TABLE No. 7.

Shewing the periods that patients were under treatment who were discharged during the year as cured.

Period under treatment.	Toronto Asylum.	London Asylum.	Kingston Asylum.	Hamilton Asylum.	Mimico Asylum.	Brockville Asylum.	Cobourg Asylum.	Total.
Under one month	4	1	.....	.....	.....	.....	.....	5
From 1 to 2 months	5	2	1	3	.....	2	.....	13
" 2 " 3 "	7	3	5	3	1	....	.....	19
" 3 " 4 "	5	3	6	2	3	.....	.....	19
" 4 " 5 "	3	1	4	2	5	2	.....	17
" 5 " 6 "	4	2	1	3	.....	2	1	13
" 6 " 7 "	4	2	5	3	2	1	.....	17
" 7 " 8 "	3	6	1	5	4	8	.....	27
" 8 " 9 "	1	2	1	2	6	5	.....	18
" 9 " 10 "	2	4	.....	1	1	6	.....	14
" 10 " 11 "	.....	2	1	1	4	1	.....	9
" 11 " 12 "	2	2	1	1	5	3	.....	14
" 12 " 18 "	.....	.....	.....	.....	.....	.....	.....	.....
" 18 months to 2 years	1	9	1	6	6	3	.....	26
" 2 to 3 years	3	6	2	3	4	2	.....	20
" 3 " 4 "	1	1	.....	3	1	1	.....	7
" 4 " 5 "	.....	2	.....	2	1	2	.....	7
" 5 " 6 "	1	1	.....	1	.....	1	.....	4
" 6 " 7 "	.....	1	.....	.....	.....	1	.....	2
" 7 " 8 "	.....	1	.....	1	.....	1	.....	3
" 8 " 9 "	.....	2	.....	.....	.....	.....	.....	2
" 9 " 10 "	.....	1	.....	1	.....	.....	.....	2
" 10 " 15 "	.....	.....	.....	1	.....	.....	.....	1
" 15 " 20 "	1	.....	.....	.....	.....	.....	.....	1
20 years and upwards	.....	.....	.....	.....	.....	.....	.....	.....
Totals	47	54	29	44	43	42	1	260

TABLE No. 8.

Shewing the periods that patients were under treatment who were discharged during the year as improved.

Period under treatment.	Toronto Asylum.	London Asylum.	Kingston Asylum.	Hamilton Asylum.	Mimico Asylum.	Brockville Asylum.	Cobourg Asylum.	Total.
Under one month	3		1					4
From 1 to 2 months	4	2		3				9
" 2 " 3 "	2			2				4
" 3 " 4 "					2			2
" 4 " 5 "	2		1			2		5
" 5 " 6 "	1	1	1	1	2			6
" 6 " 7 "			1	1				2
" 7 " 8 "		1						1
" 8 " 9 "				1		1		2
" 9 " 10 "		2		1				3
" 10 " 11 "	2			1				3
" 11 " 12 "		1	2	1				4
" 12 " 18 "	1	3		1				5
" 18 months to 2 years	1	1		1	2			5
" 2 to 3 years	4		2	3				9
" 3 " 4 "	2	1	2					5
" 4 " 5 "			1					1
" 5 " 6 "								
" 6 " 7 "								
" 7 " 8 "								
" 8 " 9 "								
" 9 " 10 "								
" 10 " 15 "	1	1		3				5
" 15 " 20 "			2	1				3
20 years and upwards			1					1
Totals	23	13	14	20	6	3		79

TABLE No. 9.

Shewing the periods that patients were under treatment who were discharged during the year, unimproved.

Periods under treatment.	Toronto Asylum.	London Asylum.	Kingston Asylum.	Hamilton Asylum.	Mimico Asylum.	Brockville Asylum.	Cobourg Asylum.	Total.
Under 1 month	2	1	1					5
From 1 to 2 months	1							1
" 2 " 3 "	2	1		1	1	1		6
" 3 " 4 "	1		1					2
" 4 " 5 "	1							1
" 5 " 6 "	4		2					6
" 6 " 7 "								
" 7 " 8 "		1						1
" 8 " 9 "								
" 9 " 10 "	1							1
" 10 " 11 "				1				1
" 11 " 12 "								
" 12 " 18 "	1	1	3					5
" 18 months to 2 years	1							1
" 2 to 3 years		1						1
" 3 " 4 "		1						1
" 4 " 5 "			1					1
" 5 " 6 "								
" 6 " 7 "								
" 8 " 9 "								
" 10 " 15 "								
" 15 " 20 "								
Totals	14	5	5	7	1	1		33

TABLE No. 10.

Shewing the length of residence of patients who died during the year.

Length of residence.	Toronto Asylum	London Asylum.	Kingston Asylum.	Hamilton Asylum.	Mimico Asylum.	Brockville Asylum.	Orillia Asylum.	Cobourg Asylum.	Total.
Under 1 month	4	4	3	5	2	3	1	.....	22
From 1 to 2 months	1	2	.....	4	1	2	1	1	11
" 2 " 3 "	2	1	1	1	4	.....	.....	1	10
" 3 " 4 "	2	2	.....	.....	1	.....	.....	.....	7
" 4 " 5 "	1	2	1	1	2	3	.....	....	10
" 5 " 6 "	2	2	2	. .	.....	1	.....	1	7
" 6 " 7 "	.....	2	2	1	2	....	....	.....	7
" 7 " 8 "	.....	1	1	.....	.....	.....	1	.....	3
" 8 " 9 "	2	2	1	1	1	1	.....	.....	8
" 9 " 10 "	1	1	3	2	2	.....	3	.....	12
" 10 " 11 "	....	1	1	2	.. ..	1	.....	.....	5
" 11 " 12 "	.....	1	.....	1	....	.. ..	1	.....	3
" 12 " 18 "	6	4	5	2	1	3	3	.....	24
" 18 months to 2 years	1	1	1	3	2	5	1	..	14
" 2 to 3 years	2	2	....	4	2	7	5	.....	22
" 3 " 4 "	3	5	3	1	2	2	2	.....	18
" 4 " 5 "	1	1	1	3	1	8	3	....	18
" 5 " 6 "	3	1	3	2	1	6	3	.....	19
" 6 " 7 "	.....	3	2	1	1	9	1	.....	17
" 7 " 8 "	1	2	1	1	1	3	2	.. .	11
" 8 " 9 "	1	1	.....	1	....	.....	1	....	4
" 9 " 10 "	1	3	1	1	3	.....	4	.....	13
" 10 " 15 "	13	8	6	4	4	.....	2	... .	37
" 15 " 20 "	1	3	3	1	.....	.....	1	.....	9
" 20 years and upwards	5	7	6	2	.....	.....	4	.....	24
Totals	44	62	47	44	33	54	38	3	325

TABLE No. 11.

Shewing the causes of death of those who died.

Causes of Death.	Toronto Asylum.	London Asylum.	Kingston Asylum.	Hamilton Asylum.	Mimico Asylum.	Brockville Asylum.	Cobourg Asylum.	Orillia Asylum.	Totals.
Acute Mania	1								1
Abscess of Bowel	1								1
Apoplexy		2		2	1	2			7
Abscess of Scalp		1							1
Angina Pectoris									
Asthma			1						1
Anæmia			1			2			3
Bright Disease	1	1							2
Cystitis				1					1
Cerebral Softening			1		2		1		4
Carcinoma of Liver			1			1			2
Cerrhosis of Liver	2	2				1			5
Cancer of Uterus	1				1				2
Cardiac Exhaustion	1	1	2	1	1				6
Cancer of Throat		1			1				2
" Liver		1				1			2
Carcinoma of Bladder			1			1			2
Diarrhœa, Chronic	2	2	1	1		1			7
Dysentery		2							2
Exhaustion of Mania	4	4	1	3	5	1	2		20
" Melancholia	2	3		3	4	2			14
Epilepsy	4	6	6	4	4	5		8	37
Erysipelas				1					1
Endocarditis				1					1
Exhaustion of Dementia					1	6			7
Fracture		1							1
Fever, Enteric			1						1
" Typhoid				1				1	2
Gastritis	1							1	2
Gangrene		1				4			5
General Debility					1	3		8	12
Heart Disease	7	1		1		6		4	19
Hernia		1							1
Hemorrhage, Cerebral			1		1				2
Inanition			1						1
Marasmus	1	1							2
Nutral disease			1						1
Nephritis Pyelo				1		1		1	3
Obstruction of Bowels		1							1
Phthisis	3	12	6	4	4	8		10	47
Parisis, General	7	2	3	5	3	2			22
Purpura Hæmoplyses	1								1
Paralysis		3				1			4
Peritonitis		1		2					3
Pyemia		1		1					2
Pleurisy		1							1
Pneumonia		1	1	3	1	1			7
Rheumatism						1		1	2
Sarcoma			1		1				2
Strangulation			1	1					2
Senile decay	3	8	12	4	1	4			32
Septicomia	1								1
Senile Dementia	1								1
Suicide		1							1
Tuberculosis			3	4	1			4	12
Voloulus			1						1
Totals	44	62	47	44	33	54	3	38	325

TABLE No. 12.

Shewing trades, callings and occupations of patients admitted into the asylums during the the year, and also the total number admitted.

Trade, callings and occupations.	Toronto Asylum.	London Asylum.	Kingston Asylum.	Hamilton Asylum.	Mimico Asylum.	Brockville Asylum.	Cobourg Asylum.	Admissions of the year.	Total admissions.
Actors									33
Artists	1	1			1			3	16
Agents		1				1		2	55
Architects	2							2	10
Actuaries									1
Basket-makers									3
Bankers									3
Bookkeepers	1	4			1		1	7	75
Bakers									52
Bricklayers									29
Butchers									36
Blacksmiths						1		1	158
Brass finishers									8
Brewers			1					1	18
Builders									13
Barbers				2				2	20
Broom-makers		1						1	9
Barristers	2							2	17
Bookbinders					1			1	10
Brickmakers									9
Bridge-tenders									1
Brush-makers									1
Button-makers									2
Baggagemasters									2
Brakemen									4
Bailiffs									1
Commercial travellers	1	1			1			3	53
Cabinet-makers									35
Consuls									1
Confectioners						1		1	9
Coopers					2			2	46
Carpenters	3	2		1		1		7	426
Clerks	6	1	2	1				10	401
Clergymen		1		1				2	74
Carriage-makers						1		1	23
Cooks		2				2		4	31
Carders									8
Captains of steamboats									7
Cigarmakers		1						1	18
Custom-house officers									13
Copperasmiths									7
Cheesemakers									2
Civil servants	5							5	20
Clock-cleaners									11
Carters									12
Contractors									1
Cloth dressers									14
Chisel-makers									1
Coachmen									8
Dyers									1
Domestic servants, all kinds	14	8	3	2	10	6	46	86	3,583
Dressmakers		2	4	2	3	1	1	13	157
Detectives									6
Druggists	1							1	49
Dentists				1		1		2	9
Doctors									3
Engineers	1	1	1	1		1		5	75
Editors									2
Engravers									4

TABLE No. 12.—*Continued.*

Shewing trades, callings and conditions of patients admitted into the asylums during the year, etc.

Trades, callings and occupations.	Toronto Asylum.	London Asylum.	Kingston Asylum	Hamilton Asylum.	Mimico Asylum.	Brockville Asylum.	Cobourg Asylum,	Admissions of the year.	Total admissions.
Farmers	10	35	10	22	16	12		105	3,973
Fishermen									7
Founders									4
Ferrymen									2
Furriers			1					1	8
Fruit canners									2
Florists									1
Gardeners					2			2	54
Grocers		1				1		2	27
Glass-blowers									4
Gentlemen					1			1	60
Glovemakers									11
Gunsmiths									2
Governors									2
Grooms									1
Hucksters									2
Hatters									5
Hostlers									11
Hunters			1					1	6
Harness-makers									33
Housekeepers	55	42	39	61	45	47	57	346	4,505
Hack drivers									28
Inn-keepers									10
Jewelers						1		1	29
Janitors	2							2	5
Journalists									2
Lock-keepers									1
Laborers	10	19	17	19	21	31		117	4,285
Laundresses									33
Ladies									264
Lawyers									35
Lumbermen					4			4	24
Lathers									1
Loom-fixer									1
Liverymen									1
Milliners						1	1	2	58
Masons									72
Machinists	2				1			3	92
Matchmakers									8
Millers									57
Moulders		1			1			2	60
Merchants	3				2	3		8	75
Mechanics	1			1		1		3	80
Music teachers							1	1	32
Marble cutters				1				1	7
Milkmen									3
Millwrights									2
No occupation	10	16	11	7	3	11	31	89	1,321
Nightwatchmen									3
Nusses			2	1	1			4	39
Organ builders									3
Piano case-makers									2
Professors of music									14
Plasterers									4

TABLE No. 42.—*Concluded.*

Shewing trades, callings and conditions of patients admitted into the asylums during the year, etc.

Trades, callings and occupations.	Toronto Asylum.	London Asylum.	Kingston Asylum.	Hamilton Asylum.	Mimico Asylum.	Brockville Asylum.	Cobourg Asylum.	Admissions of the year.	Total admissions.
Pensioners	1	....	....	..	....	....	....	1	6
Photographers	1	1	....	..	....	....	....	2	16
Prostitutes	....	....	..	....	....	.. ..	....	....	13
Painters	2	....	1	....	2	1	....	6	154
Printers	1	....	....	....	....	1	....	2	82
Pedlars	....	....	....	....	....	....	....	....	23
Physicians	....	1	1	....	....	....	....	2	58
Pumpmakers	....	....	....	....	....	....	....	....	4
Plumbers	....	....	....	....	....	....	....	....	3
Patternmakers	....	....	....	....	....	....	....	....	1
Policemen	....	....	....	....	....	....	....	....	1
Private Secretary	....	....	....	....	....	....	....	....	1
Porters	....	....	....	....	....	....	....	....	1
Railway employees	....	3	....	....	....	....	....	3	35
Spinsters	....	3	....	....	....	....	....	3	208
Sailors	..	....	2	1	....	....	.. ..	3	86
Students	1	1	....	1	....	....	....	3	173
Spinners	....	....	....	....	....	....	....	....	34
Sisters of charity	....	....	....	....	....	....	....	....	6
Soda water manufacturers	....	....	....	....	....	....	....	....	1
Stonecutters	....	....	....	....	....	....	....	....	24
Showmen	....	....	1	....	....	..	....	1	3
Saddle s	....	....	....	....	....	....	....	....	17
Shoemakers	2	3	....	....	....	....	....	5	215
Seamstresses	....	....	....	....	2	....	....	2	53
Slaters	....	....	....	....	....	....	....	....	1
Soldiers	....	....	....	....	1	....	....	1	28
Salesmen	2	....	....	....	....	....	....	2	18
Surveyors	..	....	....	....	..	....	....	....	6
Sail and tent makers	....	....	1	....	....	....	....	1	4
Shop-keepers	....	....	....	....	....	....	....	....	10
Ship-builders	....	.. ..	.. ..	....	....	....	....	....	11
Stenographers	....	....	....	....	..	....	....	....	6
Station-masters	....	....	....	....	....	....	....	....	1
Teachers	....	....	1	1	1	1	....	4	300
Tinsmiths	....	..	....	1	....	1	....	2	44
Tavern-keepers	....	....	1	..	....	....	....	1	139
Tailors	2	1	....	4	3	1	....	11	71
Tanners	..	....	....	..	....	....	....	....	17
Teamsters	....	....	....	1	....	1	....	2	12
Telegraph operators	....	..	....	1	....	....	....	1	8
Upholsterers	....	....	....	....	....	..	....	..	1
Veterinary surgeons	....	....	....	....	....	....	....	....	2
Vinegar maker	....	....	....	....	....	....	....	....	1
Watchmakers	....	....	....	....	....	....	....	....	15
Woodworkers	....	....	....	....	....	....	....	....	12
Weavers	....	....	....	....	....	....	....	....	43
Wheelwrights	....	....	....	....	....	....	....	....	.
Wagonmakers	....	....	....	....	....	....	....	....	3
Waiters	....	..	..	....	....	.	....	....	27
Wives	....	....	.	....	....	....	....	....	650
Unknown or other employment	11	....	....	10	4	....	1	26	2,871

TABLE No. 13.

Showing in detail the expenditure of the various Asylums during the years ending 30th September, 1902.

	Toronto asylum.	London asylum.	Kingston asylum.	Hamilton asylum.	Mimico asylum.	Brockville asylum.	Cobourg asylum.	Orillia asylum.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Medicines	472 91	991 96	607 42	793 44	802 64	563 11	287 68	340 45
Medical comforts and appliances	222 73	23 38	153 86	212 32	303 56	8 00	213 14	....
Butcher's meat	13,770 03	14,658 26	11,884 35	12,572 13	6,900 23	8,398 42	883 81	6,795 16
Poultry, fish, etc	1,701 79	1,247 03	958 22	2,204 11	1,000 00	1,155 26	197 33	264 32
Flour, bread, etc	3,392 60	5,957 32	3,589 65	5,450 39	3,732 61	3,949 84	564 93	3,906 99
Butter	5,671 36	7,265 04	3,771 27	7,603 50	4,716 90	4,177 08	526 39	4,685 46
Barley, rice, peas and meal	1,145 00	1,633 30	713 70	1,307 90	1,123 28	1,228 04	168 20	376 39
Tea	1,778 50	1,450 94	976 25	1,043 00	1,010 00	306 75	158 50	531 19
Coffee	281 25	1,266 01	763 50	753 20	269 20	318 00	47 50	418 78
Cheese	271 59	1,262 72	75 48	690 71	383 33	402 84	33 70	37 25
Eggs	883 08	475 14	399 37	909 07	560 35	468 52	57 91	238 18
Fruit (dried)	616 07	811 49	231 45	2,318 52	725 75	1,491 49	236 51	265 71
Tobacco and pipes	12 96	740 33	422 10	461 41	510 30	403 20	....	40 46
Salt, pepper, mustard, vinegar, pickles	431 66	412 82	168 80	421 53	208 71	310 08	67 55	107 68
Sugar and syrup	2,393 36	2,561 30	1,918 24	2,547 75	1,710 36	1,423 25	231 91	1,491 51
Unenumerated groceries	986 94	113 72	235 20	....	817 39	1,229 25	333 68	336 29
Fruit and vegetables	2,273 31	820 35	2,178 83	1,777 72	487 37	1,906 20	274 43	811 93
Bedding	1,277 16	3,025 34	1,584 98	1,507 61	728 79	923 76	865 05	731 65
Straw for bedding	210 50	304 85	....	....	....	....	5 00	260 03
Clothing	2,472 34	7,545 97	3,219 81	4,949 64	2,878 81	2,686 16	942 12	3,360 32
Shoes	466 19	1,839 19	449 61	937 67	503 48	1,029 65	98 95	914 65
Coal	3,676 72	20,593 42	5,499 13	23,660 33	353 44	4,878 67	2,033 41	6,376 21
Wood	420 00	200 00	14 00	237 56	313 58	....	....	239 78
Gas	3,231 45	2,817 50	....	402 45	....	2,560 72	....	805 41
Oil and candles and electric light	390 73	254 02	444 76	5,208 32	89 32	88 80	328 30	31 92
Matches	4 03	48 00	14 50	....	21 00	40 00	2 00	19 10
Brushes, brooms and mops	235 30	569 15	261 45	355 25	385 77	187 50	202 92	191 32
Bath-brick, black-lead, blacking	5 00	8 00	12 16	8 73	27 60	5 70	2 90	8 68
Soap and other laundry expenses	1,201 60	1,430 77	939 40	1,462 59	1,229 58	972 17	315 14	1,193 47
Water	3,475 52	....	....	3,584 66	....	2,000 00	208 68	....
Ice	355 41	....	....	593 67	328 83	219 80	213 80	75 00
Advertising and printing	450 77	338 50	225 95	531 55	297 11	174 10	359 84	358 55
Postage, telegraph and express charges	116 00	547 67	346 92	264 76	254 20	240 59	101 33	231 93
Stationery and library	292 40	762 27	416 31	378 93	379 05	179 46	152 77	75 16
Furniture, renewals and repairs	948 26	2,100 59	1,329 30	3,389 28	1,782 74	503 02	674 45	861 59

Iron and tinware	330 52	453 57	64 98	179 75	233 64	44 95	212 87	121 70
Crockery and glassware	276 04	750 78	383 53	466 82	294 99	322 96	102 60	118 38
Feed and fodder	3,310 59	914 43	1,113 31	1,121 21	702 92	1,591 44	.....	1,605 66
Farm stock and implements and repairs thereat	211 23	1,216 63	583 19	1,140 43	1,019 88	153 17	63 65	183 84
Repairs (ordinary) to buildings	2,131 67	2,881 17	1,210 43	972 03	1,561 29	727 21	77 87	940 67
Hardware, etc	372 09	638 59	280 35	1,443 96	826 57	1,329 15	309 15	90 10
Paints and oils	375 20	742 73	629 83	1,138 11	723 59	442 72	96 57	66 48
Officers' travelling expenses	24 60	198 69	63 00	234 00	211 00	49 75	312 81	30 90
Elopers, cost of recovering	17 61	49 40	2 50	.....	39 20	.....	.....	.....
Freight and duties	125 28	37 22	73 84	184 72	80 90	66 67	95 04	131 16
Amusements	450 70	93 05	108 92	151 15	92 06	53 30	11 50	64 11
Religious services and school instruction	161 00	176 00	.....	.....	.....	.....	40 60	36 54
Rent	.....	.....	.....	.....	.....	484 00	235 15	.....
Incidentals	412 82	803 89	902 00	401 60	355 76	208 00	668 06	561 34
Transfer and removal of patients	.....	.....	.....	.....	.....	7 50	2 25	.....
Salaries and wages	33,963 03	39,349 84	26,137 26	35,096 29	26,831 41	22,720 27	8,131 23	20,454 93
Totals	97,696 89	132,382 34	75,360 51	131,069 77	67,748 69	73,140 52	21,148 32	60,788 33

TABLE No. 14.

Shewing the expenditure in each Asylum under the various headings of the estimates and the annual cost per patient under such heading.

Headings of estimates.	Toronto asylum.		London asylum.		Kingston asylum.		Hamilton asylum.		Mimico asylum.		Brockville asylum.		Cobourg asylum.		Orillia asylum.	
	Expended under headings of Estimates.	Yearly cost per patient.	Expended under headings of Estimates	Yearly cost per patient.	Expended under headings of Estimates.	Yearly cost per patient.	Expended under headings of Estimates.	Yearly cost per patient.	Expended under headings of Estimates.	Yearly cost per patient.	Expended under headings of Estimates.	Yearly cost per patient.	Expended under headings of Estimates.	Yearly cost per patient.	Expended under headings of Estimates.	Yearly cost per patient.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c	$ c.	$ c.	$ c.	$ c.	$ c.
Medicine and medical comforts	695 64	97	1,015 34	99	761 28	1 28	1,005 76	97	1,106 20	1 87	571 11	91	500 92	3 81	340 45	52
Butcher's meat, fish and poultry	15,471 72	21 58	15,905 29	15 59	12,842 57	21 73	14,776 24	14 39	7,900 23	13 39	9,553 38	15 05	1,081 14	8 23	7,059 48	10 76
Flour, bread, etc	3,392 60	4 73	5,957 32	5 84	3,589 65	6 07	5,450 39	5 31	3,732 61	6 32	3,949 84	6 22	564 93	4 30	3,906 99	5 96
Butter	5,671 36	7 91	7,265 04	7 12	3,771 27	6 38	7,603 50	7 40	4,716 90	7 99	4,177 08	6 58	526 39	4 01	4,685 46	7 14
Groceries	5,860 71	12 27	10,727 77	10 52	5,904 09	9 99	10,453 09	10 17	7,258 87	12 30	8,081 42	12 73	1,335 50	10 17	3,843 44	5 86
Fruit and vegetables	2,273 31	3 17	820 35	81	2,178 83	3 69	1,777 72	1 73	487 37	83	1,906 20	3 00	274 43	2 09	811 93	1 24
Bedding, clothing and shoes	4,426 19	6 17	12,715 35	12 46	5,253 80	8 88	7,394 92	7 20	4,111 08	6 96	4,649 57	7 33	1,910 12	14 54	5,266 65	8 03
Fuel	4,096 72	5 71	20,793 42	20 39	5,513 13	9 32	23,897 89	23 27	667 02	1 13	4,878 67	7 69	2,033 41	15 48	6,615 99	10 09
Gas, oil, etc.	3,626 21	5 06	3,119 52	3 06	461 26	78	5,610 77	5 48	110 32	19	2,689 52	4 21	330 30	2 52	856 43	1 30
Laundry soap and cleaning	1,441 90	2 01	2,007 92	1 97	1,213 01	2 05	1,826 57	1 79	1,642 95	2 78	1,165 37	1 86	520 96	3 97	1 393 47	2 12
Furniture and furnishings	1,554 82	2 17	3,304 94	3 24	1,777 81	3 00	4,035 85	3 93	2,311 37	3 92	870 93	1 36	989 92	7 54	1,101 67	1 68
Farm, garden, feed and fodder	3,521 82	4 91	2,131 06	2 09	1,696 50	2 87	2,261 64	2 20	1,722 80	2 92	1,744 61	2 75	63 65	49	1,789 50	2 73
Repairs and alterations.	2,878 96	4 01	4,262 49	4 18	1,437 01	2 43	3,290 63	3 20	3,111 45	5 27	2,499 08	3 92	483 59	3 68	1,097 25	1 67
Printing, postage and stationery	859 17	1 20	1,648 44	1 61	989 18	1 67	1,175 24	1 14	930 36	1 58	594 15	92	613 94	4 68	665 64	1 01
Water supply	3,475 52	4 85					3,584 66	3 49			2,000 00	3 14	208 68	1 59		
Salaries and wages	33,963 03	47 37	39,349 84	38 58	26,137 86	44 22	35,096 29	34 17	26,831 41	45 47	22,720 27	35 77	8,131 23	61 91	20,454 93	31 18
Miscellaneous	1,547 41	2 16	1,358 25	1 33	1,833 36	3 10	1,828 61	1 78	1,107 75	1 88	1,089 92	1 73	1,579 21	12 02	899 05	1 37
Totals	97,696 87	136 25	132,382 34	129 78	75,360 51	127 46	131,069 77	127 62	67,748 69	114 80	73,140 52	115 18	21,148 32	161 03	60,788 33	92 66

TABLE No. 15.

Shewing the supplies for which tenders were invited and the prices paid for same.

Supplies.	Toronto Asylum.	London Asylum.	Kingston Asylum	Hamilton Asylum	Mimico Asylum.	Brockville Asylum.	Cobourg Asylum.	Orillia Asylum.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Butchers' meat, per cwt						6 75	7 50	6 55
Flour, per bbl	3 32½	3 44	3 48	3 55	3 47½	3 49	3 60	3 63
Oatmeal, per bbl	5 75	4 75	5 85	5 70	5 75	5 80	5 85	5 75
Split peas, per bbl	4 50		3 95			4 80		
Butter, creamery, per lb	20½	21	21½	21½	21	22	22	
" dairy, per lb	16¾		18		16¾	16		17¼
Potatoes, per bush	65		65			65		
Fuel.								
Hard coal, large egg, per ton	5 48		5 85	5 85	5 63	5 86	5 90	
" stove "	5 73	5 65	5 85	5 85	5 91	5 86	5 90	6 25
" chestnut "	5 73	5 65	5 85	5 85	5 91	5 86	5 90	
" small egg "		5 90	5 85	5 85		5 86		
" screenings " hard			2 80	2 25				
" screenings " soft	2 93		3 60	3 00	3 28			3 89
Soft coal	4 85	4 25		5 00				
Hard wood, green, per cord	5 60							
" dry, "								

TABLE

Shewing the nature of employment, the number of patients employed, the number of

Nature of employment.	Toronto Asylum			London Asylum			Kingston Asylum			Hamilton Asylum		
	No. of patients who worked.	No. of days worked.	Average per patient.	No. of patients who worked.	No. of days worked.	Average per patient.	No. of patients who worked.	No. of days worked.	Average per patient.	No. of patients who worked.	No. of days worked.	Average per patient.
Carpenter shop	3	936	312	10	2,853	285	15	3,060	204	4	1,011	253
Tailor shop	4	868	216	4	1,234	309	5	1,080	216	3	939	313
Shoemaker's shop	3	864	288	2	606	303	6	1,248	208	4	1,047	262
Engineer's shop	6	2,160	360	8	2,339	292	8	2,039	256	8	2,624	328
Blacksmith's shop	....	....	....	....	....	....	2	530	265	....	....	....
Mason work	1	312	312	5	1,245	249	14	3,600	257	10	1,529	153
Repairing roads	....	....	....	....	....	....	3	840	280	....	....	....
Wood yard and coal shed	8	2,880	360	2	608	304	4	1,040	260	....	....	....
Bakery	3	1,080	360	5	1,421	284	4	920	230	4	1,216	304
Laundry	40	1,224	306	30	9,516	317	28	7,504	268	33	9,205	280
Dairy	6	2,160	360	2	151	75	12	3,060	255	7	2,466	352
Butcher shop and slaughter house	1	312	312	5	1,561	312	6	1,640	273	4	469	117
Piggery	....	....	....	....	....	....	3	760	253	....	....	....
Painting	3	936	312	3	897	299	8	1,850	231	5	1,386	277
Farm	....	....	....	47	11,554	246	17	4,289	252	36	7,880	219
Garden and grounds	18	5,616	312	67	16,900	252	16	2,946	184	90	19,880	229
Stable	6	2,160	360	11	3,599	327	8	1,860	232	7	2,251	320
Kitchen	9	3,245	360	26	9,295	356	16	4,669	200	21	6,895	328
Dining-rooms	73	24,580	337	52	16,767	322	40	12,103	303	65	22,674	349
Officers' quarters	5	1,800	360	....	....	....	10	2,545	254	7	2,270	324
Sewing	4	1,248	312	62	13,866	224	39	11,061	284	58	16,061	280
Knitting	32	9,216	290	24	6,048	250	34	9,377	275	48	13,044	272
Spinning	....	....	....	....	....	....	....	....	....	....	....	....
Mending	38	10,944	288	10	1,354	135	18	5,194	288	22	3,723	170
Wards and halls	125	35,000	208	358	117,804	329	157	47,237	301	445	151,295	342
Storeroom	1	312	312	3	463	154	2	540	270	4	389	97
Not otherwise specified	120	39,966	338	156	38,189	244	50	9,664	193	40	13,375	335
Totals	509	158,825	312	892	258,250	288	525	140,656	268	925	281,629	305

No. 16.

days' work done by patients, and the average work in days per patient during the year.

Mimico Asylum			Brockville Asyl'm			Cobourg Asylum			Orillia Asylum			Totals.		
No. of patients who worked.	No. of days worked.	Average per patient.	No. of patients who worked.	No. of days worked.	Average per patient.	No. of patients who worked.	No. of days worked.	Average per patient.	No. of patients who worked.	No. of days worked.	Average per patient.	No. of patients who worked.	No. of days worked.	Average per patient.
5	1,415	283	5	1,240	248	....	....	....	2	312	156	44	10,827	246
5	1,206	241	2	427	213	....	....	....	6	1,252	209	29	7,006	242
2	582	291	....	....	....	....	....	....	....	....	....	17	4,347	255
9	2,740	304	3	962	320	....	....	....	....	....	....	42	12,864	306
....	....	....	....	....	....	....	....	....	....	....	....	2	530	265
3	881	294	5	992	194	....	....	....	....	....	....	38	8,559	225
....	....	....	10	1,450	145	....	....	....	....	....	....	13	2,290	176
....	....	....	2	610	305	....	....	....	8	1,240	155	24	6,378	266
3	973	324	3	1,041	347	....	....	....	3	939	313	25	7,590	303
20	6,200	310	23	7,024	305	4	435	109	22	6,328	287	[illegible]	47,436	237
....	....	....	6	2,140	373	....	....	....	7	2,510	358	40	12,487	312
....	....	....	2	730	365	....	....	....	2	156	78	20	4,568	228
....	....	....	2	720	360	....	....	....	2	730	365	7	2,210	316
4	1,043	261	4	883	221	....	....	....	1	260	260	28	7,255	259
10	3,153	315	36	9,085	252	....	....	....	12	1,872	156	158	37,833	239
36	11,400	316	69	14,624	212	....	....	....	22	3,277	144	318	74,643	235
4	1,362	340	2	720	360	....	....	....	4	1,277	319	42	13,229	315
15	4,049	269	14	4,380	313	5	545	109	17	2,228	131	123	35,286	287
15	5,421	361	58	20,320	351	9	1,365	132	34	11,620	342	346	114,850	332
12	3,439	287	2	690	345	....	....	....	4	1,425	356	40	11,969	299
8	2,594	329	26	5,212	200	9	989	108	7	1,904	272	213	52,935	249
35	10,875	309	40	3,108	77	6	627	104	37	7,214	195	256	59,509	233
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
21	6,533	311	19	3,972	209	2	111	55	20	1,040	50	150	32,871	212
22	6,628	301	90	22,936	255	61	12,136	199	198	71,337	360	1,456	464,373	305
1	361	361	....	....	....	....	....	....	1	313	313	12	2,378	198
310	109,442	353	125	39,615	317	9	934	104	27	7,834	290	837	259,019	309
540	180,297	334	548	142,881	260	105	17,142	163	436	125,068	286	4,480	1,293,233	289

TABLE No. 17.

Shewing the number of officers and employees in each and all of the asylums classified according to the duties performed.

Occupation.	Toronto Asylum.	London Asylum.	Kingston Asylum.	Hamilton Asylum.	Mimico Asylum.	Orillia Asylum.	Brockville Asylum	Cobourg Asylum	Total
Medical superintendents	1	1	1	1	1	1	1	1	8
Assistant medical superintendents	1	1	1	1	1		1	1	7
Assistant medical officers	1	2	1	2	1	1	1		9
Bursars and clerks	2	2	2	2	2	1	1	1	13
Storekeepers and assistants	1	2	1	2	1	1	1		9
Stewards	1		1		1				3
Matrons	1	1	1	1	1	1	1	1	8
Assistant matrons	1	1	1	2	1	1	1		8
Engineer's assistants and stokers	5	10	4	9	6	6	5	3	48
Masons and bricklayers	1	1			1				3
Carpenters	2	2	1	2	2	1	1	1	12
Painters	1	1							2
Bakers and assistants	2	2	1	1	1	1	1	1	10
Gardeners and assistants	2	2	2	2	1	1	1	1	12
Farmers and farm laborers	1	4	1	4	2	2	1		15
Tailors and seamstresses	2	3	2	3	2	4	2	1	19
Shoemakers		1		1	1				3
Stable and stock keepers	1	2	1	1	2				7
Butchers and jobbers		2	1	1	1				5
Messengers, porters and portresses	2	2	1	1	2	2	1	1	12
Cooks and kitchen maids	5	6	3	7	4	2	3	2	32
Laundresses and assistants	6	4	2	4	3	3	3	2	27
House-maids	4	8	2	3	4	8	2		31
Dairymaids	1	1	1			1	1		5
Laundryman					1				1
Attendants.									
Chief male attendants and supervisors	10	12	8	8	6	1	7		52
Chief female attendants and supervisors		7	7	11	5		6	2	38
Trained infirmary nurses	1	1	1	1					4
Teachers of feeble-minded children						4			4
Ordinary male attendants	19	32	15	33	18	13	17		147
Ordinary female attendants	21	27	15	27	18	11	15	9	143
Male night-watchers	4		2	3	2	2	1		14
Female night-watchers	4	3		7	2	2	1		19
Totals	103	143	79	140	93	70	75	27	730

TABLE No. 18.

Shewing in quinquennial periods the ages of those persons admitted to the Asylums (including transfers during the year ending 30th September, 1902.

Ages.	Toronto Asylum.			London Asylum.			Kingston Asylum.			Hamilton Asylum.			Mimico Asylum.			Brockville Asylum.			Cobourg Asylum.			Orillia Asylum.			Totals.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total	Male.	Female	Total.
Under 15 years	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	11	7	18	11	7	18
From 15 to 20 years	1	4	5	2	3	5	3	....	3	2	5	7	2	2	4	5	3	8	....	....	....	5	5	10	20	22	42
" 20 " 25 "	8	8	16	5	8	13	6	10	16	3	8	11	3	6	9	7	5	12	....	4	4	4	5	9	36	54	90
" 25 " 30 "	9	10	19	9	7	16	8	4	12	4	4	8	8	9	17	4	5	9	...	5	5	3	2	5	45	46	91
" 30 " 35 "	6	14	20	5	9	14	3	4	7	11	3	14	15	9	24	7	8	15	....	11	11	2	1	3	49	59	108
" 35 " 40 "	6	10	16	11	12	23	3	7	10	11	9	20	7	9	16	12	6	18	....	19	19	2	2	4	52	74	126
" 40 " 45 "	4	7	11	6	10	16	4	5	9	4	14	18	11	8	19	11	5	16	...	13	13	1	4	5	41	66	107
" 45 " 50 "	4	10	14	4	7	11	5	9	14	9	12	9	4	4	8	6	5	11	...	20	20	1	1	2	39	68	107
" 50 " 55 "	3	9	12	4	6	10	6	7	13	5	9	14	3	4	7	4	4	8	.	18	18	....	1	1	29	58	87
" 55 " 60 "	11	6	17	8	5	13	3	1	4	4	6	10	4	4	8	6	4	10	....	19	19	....	....	..	36	45	81
" 60 " 65 "	6	7	13	5	3	8	2	2	4	7	5	12	1	7	8	6	7	13	...	19	19	...	...	...	27	50	77
" 65 " 70 "	2	4	6	4	4	8	1	....	1	5	2	7	1	1	2	1	2	3	...	7	7	...	...	....	14	20	34
" 70 " 75 "	2	.	2	2	5	7	....	4	4	...	2	2	1	.	1	2	1	3	....	5	5	..	....	....	7	17	24
" 75 " 80 "	1	1	2	4	3	7	....	1	1	....	1	1	..	3	3	2	1	3	....	1	1	..	....	....	7	11	18
" 80 " 85 "	...	.....	...	...	2	2	1	...	1	....	....	....		1	1	1	...	1	....	1	1	...	..	...	2	4	6
" 85 " 90 "	1	.	1	....	.....	.	1	....	1	...	.	...	.	...	..	....	...	....	.....	...	.....	.....	.....	.....	2	...	2
" 90 " 95 "	....		.	...	....	....	....		.	...	..	..	..	..	.		....		.....	...	.....	.....	..	....	...	....	
Unknown	....	..	.			..		..	..	.	1	1	..	4	4	.	....		...	3	3	...	....	....	...	8	8
Totals	64	90	154	69	84	153	45	55	100	65	81	146	64	67	131	74	56	130	....	145	145	29	28	57	410	606	1,016

TABLE No. 19.

Shewing in quinquennial periods the ages of those persons discharged from the Asylums as cured during the year ending 30th September, 1902.

Ages.	Toronto Asylum.			London Asylum.			Kingston Asylum.			Hamilton Asylum.			Mimico Asylum.			Brockville Asylum.			Cobourg Asylum.			Totals.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male	Female	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Under 15 years																								
From 15 to 20 years	1	1	2					1	1					2	2	1	1	2				2	6	8
" 20 " 25 "	4	1	5	4	1	5	2	2	4	3	1	4	4	4	8	2	6	8				19	15	34
" 25 " 30 "	4	4	8	5	6	11	2	1	3	3	3	6	4	2	6	2	3	5				20	19	39
" 30 " 35 "		5	5	2	3	5	1	2	3	1	3	4	5	5	10	2	2	4				10	20	30
" 35 " 40 "	1	4	5	2	7	9	1	1	2	5	3	8	1	4	5	3		3		1	1	13	20	33
" 40 " 45 "	1	3	4	4	1	5	1	1	2	1	4	5	2	1	3	1	3	4				11	13	24
" 45 " 50 "	1	1	2	1	3	4	1	2	3	2	2	4	2	1	3	3		3				10	9	19
" 50 " 55 "		3	3	4		4	1	2	3	2	4	6	1	1	2	1	1	2				9	10	19
" 55 " 60 "	4	4	8	3	2	5	1	2	3				3		3	1	3	4				12	11	23
" 60 " 65 "		3	3	2	1	3		2	2	2	3	5		1	1	4	3	7				8	13	21
" 65 " 70 "	1		1	1	1	2	1	1	2	1		1										4	2	6
" 70 " 75 "										1		1										1		1
" 75 " 80 "		1	1	1		1	1		1													2	1	3
Unknown																								
Totals	17	30	47	29	25	54	12	17	29	21	23	44	22	21	43	20	22	42		1	1	121	139	260

TABLE No. 20.

Showing in quinquennial periods the ages of those persons who died in the asylums during the year ending 30th September, 1902.

Ages.	Toronto Asylum.			London Asylum.			Kingston Asylum.			Hamilton Asylum.			Mimico Asylum.			Brockville Asylum.			Cobourg Asylum.			Orillia Asylum.			Totals.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Under 15 years																						4	2	6	4	2	6
From 15 to 20 years											1	1				1		1				5	2	7	6	3	9
" 20 " 25 "	1		1		1	1		2	2		1	1	1	1	2	2		2		1	1	2	2	4	6	8	14
" 25 " 30 "	2		2	2	1	3		2	2	1	2	3				1		1				4	2	6	10	7	17
" 30 " 35 "	2		2	1	1	2	1	2	3				2	1	3	1	2	3				3	4	7	10	10	20
" 35 " 40 "	3		3	5	2	7	2	2	4	2	1	3	1	1	2	4	1	5				1	1	2	18	8	26
" 40 " 45 "	4		4	4	6	10	3	4	7	3	1	4	1	2	3	2	1	3				1	1	2	18	15	33
" 45 " 50 "	5	2	7	2	2	4	1	2	3	1		1	4	3	7	2		2		1	1	1		1	16	10	26
" 50 " 55 "	1		1				1	2	3	6		6	1	2	3		2	2				1		1	10	6	16
" 55 " 60 "	4	1	5	3	5	8		2	2	2	2	4	3		3	3	3	6					1	1	15	14	29
" 60 " 65 "	4	2	6	4	4	8	2	1	3	6	3	9	1	4	5	6	6	12							23	20	43
" 65 " 70 "	3	3	6	2	4	6	4	1	5	3	1	4	1		1	3	1	4					1	1	16	11	27
" 70 " 75 "	1		1	1	3	4	1	2	3	1	1	2	2		2	4	1	5							10	7	17
" 75 " 80 "	1	1	2	2	4	6		5	5	1	2	3	1	1	2	3	1	4							8	14	22
" 80 " 85 "	1	2	3	2	1	3	2	1	3	1	2	3				2		2		1	1				8	7	15
" 85 " 90 "	1		1					1	1																1	1	2
" 90 " 95 "								1	1							1	1	2							1	2	3
" 95 " 100 "																											
Unknown																											
Totals	33	11	44	28	34	62	17	30	47	27	17	44	18	15	33	35	19	54		3	3	22	16	38	180	145	325

The details of the distribution of all these persons will be found in the following table, which also affords a means of comparison with the previous year.

Place of confinement.	30th Septen ber, 1901.			30th September, 1902.		
	Male.	Female.	Total.	Male.	Female.	Total.
Asylum for Insane, Toronto	362	362	724	353	364	717
" " London	490	544	1,034	486	527	1,013
" " Kingston	312	287	599	319	270	589
" " Hamilton	468	561	1,029	477	540	1,017
" " Mimico	303	302	605	297	299	596
" " Brockville	301	312	613	316	323	639
" " Cobourg					141	141
Total insane in asylums	2,236	2,368	4,604	2,248	2,464	4,712
Asylum for Idiots, Orillia	350	302	652	346	313	659
Total number in Provincial Asylums	2,586	2,670	5,256	2,594	2,777	5,371
Homewood Retreat, Guelph	5	12	17	7	18	25
Insane convicts in Kingston Penitentiary	36		36	37		37
Insane and idiotic persons in the common gaols	59	36	95	47	18	65
Total number of insane and idiotic persons under public accommodation	2,686	2,718	5,404	2,685	2,813	5,498
Number of applications on hand for admission to the Toronto Asylum	5	7	12	14	5	19
Number of applications on hand for admission to the London Asylum	7	23	30	10	10	20
Number of applications on hand for admission to the Kingston Asylum	2	5	7	5	5	10
Number of applications on hand for admission to the Hamilton Asylum	11	9	20	6	16	22
Number of applications on hand for admission to the Mimico Asylum			8	1	10	11
Number of applications on hand for admission to the Brockville Asylum	3	3	6	3	5	8
Number of applications on hand for admission to the Orillia Asylum	231	162	393	278	187	465
Total number of insane and idiotic persons known to the Department on 30th September, 1901 and 1902	2,945	2,935	5,880	3,002	3,051	6,053

Assigned Causes of Insanity.

The table showing the assigned causes of insanity is annexed.

Assigned causes.	Number of instances in which each was assigned.					
	As predisposing cause.			As exciting cause.		
	Male.	Female.	Total.	Male.	Female.	Total.
Domestic troubles, including loss of relatives or friends	.....	3	3	5	25	30
Religious excitement	.....	.....	.....	15	15	30
Adverse circumstances, including business troubles	4	4	8	29	11	40
Love affairs, including seduction	.....	2	2	8	28	36
Mental anxiety—"worry"	4	4	8	20	17	37
Fright and nervous shocks	1	1	2	11	13	24
Physical.						
Intemperance in drink	13	1	14	24	12	36
Intemperance, sexual	4	.....	4	5	5	10
Venereal diseases	3	1	4	5	3	8
Self-abuse, sexual	10	5	15	36	4	40
Over-work	3	2	5	11	8	19
Sunstroke	5	.....	5	8	4	12
Accident or injury	3	3	6	10	6	16
Pregnancy	6	....	6	.....	10	10
Puerperal	.....	4	4	.....	30	30
Lactation	.....	2	2	.....	10	10
Morphia habit	.....	.....	.....	2	8	10
Puberity and change of life	.....	6	6	.....	15	15
Uterine disorders	1	12	13	2	5	7
Brain disease, with general paralysis	12	7	19	17	19	36
Brain disease, with epilepsy	12	8	20	20	10	30
Other forms of brain disease	2	3	5	36	19	55
Other bodily diseases or disorders, including old age	29	14	43	22	38	60
Fevers	10	2	12	9	17	26
Hereditary.						
With other ascertained cause in combination	58	40	98	.....	.....	.....
With other combined cause not ascertained	100	69	169	.....	4	4
Congenital.						
With other ascertained causes in combination	26	32	58	2	.....	2
With other combined causes not ascertained	4	1	5	3	.....	3
Unknown	71	352	423	181	142	323
Total	381	578	959	381	578	959

The following table shows the admissions, discharges, etc., for each year since 1877, inclusive :

Year.	Lunatics admitted.	Discharged, died and escaped.	Remained.	Percentage.
1877	437	331	106	24 25
1878	479	335	144	30 06
1879	461	321	140	30.36
1880	507	353	154	30.37
1881	502	386	116	23.10
1882	493	401	92	18.66
1883	518	433	86	16.57
1884	493	416	77	15.61
1885	457	423	34	7.44
1886	519	355	164	31.60
1887	425	395	30	7.06
1888	566	386	180	31.80
1889	514	441	73	14 20
1890	669	492	117	26.46
1891	928	495	438	46.66
1892	792	531	261	32.95
1893	753	533	220	29.21
1894	789	522	167	24.24
1895	968	569	399	41.22
1896	753	582	181	23.72
1897	905	594	311	34.36
1898	759	650	109	14.36
1899	711	672	39	5.48
1900	722	651	71	9.83
1901	742	636	106	14 28
1902	959	851	108	11.26

Employment of Patients.

The following two tables show, 1st, the percentage of patients employed in the year just closed, and 2nd, the increase in that percentage which has taken place since 1892, the first year in which we have regular statistics on the subject :

Asylums.	Actual population.	Number of patients who worked.	Collective stay, in days of patients.	Number of days' work done.	Percentage of days worked to collective stay.
Toronto	878	509	261,705	158,825	60.68
London	1,187	892	372,211	258,250	69.38
Kingston	699	525	215,491	140,656	65.21
Hamilton	1,175	925	374,717	281,629	75.16
Mimico	736	540	215,393	180,297	83.70
Brockville	743	548	231,767	142,881	61.65
Cobourg	145	105	34,148	17,142	50 22
Orillia	709	436	239,585	125,068	52 20
Total	6,272	4,480	1,945,017	1,293,233	66 49

Discharges.

Asylums.	No. of cures.	No. of admissions.	Percentage of cures to admissions.
Toronto	47	154	30.52
London	54	153	35 29
Kingston	29	100	29.00
Hamilton	44	146	30.14
Mimico	43	131	32.83
Brockville	42	130	32.31
Cobourg	1	145	.69
Totals	260	959	27.11

Probational Discharges.

	Male.	Female.	Total.	Male.	Female.	Total.
Number to whom probational leave was granted	....	.....	.....	151	168	319
Discharged, cured	78	80	158			
" improved	6	17	23			
" unimproved	2	4	6			
Died before expiration of leave	.....	.....	.....			
Returned to Asylum	34	31	65			
Out on probation 30th September, 1902	31	36	67			
Totals	151	168	319	151	168	319

Deaths in Asylums.

Asylums.	No. of deaths.	Total population.	Percentage of deaths on total population.
Toronto	44	878	5.01
London	62	1,187	5.22
Kingston	47	699	6 72
Hamilton	44	1,175	3.75
Mimico	33	736	4.48
Brockville	54	743	7.27
Cobourg	3	145	.20
Orillia Idiot	38	709	5 36
Totals	325	6,272	4.75

The following table shews the percentage of days worked to the collective stay in the asylum in each year since 1882 :

Year.	Toronto.	London.	Kingston.	Hamilton.	Mimico.	Brockville.	Orillia.	Cobourg.
1882	32 15	54.00	45.11	37 61				
1883	30.44	69.89	50.33	62.38				
1884	53.90	86 56	76.59	56.40				
1885	38.40	79.58	61.13	48.82				
1886	41.10	77.84	68.26	62.32				
1887	56 37	77.84	68.26	61.49				
1888	52 09	77 54	65.71	73.95				
1889	51.39	77.30	70.56	57.32				
1890	62.01	75.43	70.27	68.43				
1891	67 04	73.40	87.24	77.27				
1892	75 05	77.20	65.89	76 90	36 11			
1893	73.44	78.71	73.22	77.20	43 26			
1894	77.13	77.41	74.47	76.43	72.12			
1895	91 64	76.11	68.60	76 74	53 08	52.84	38.50	
1896	72.04	75.69	70.00	73.64	71 36	73.42	41.85	
1897	64.99	78.01	69.39	78.24	74.18	52.30	40.67	
1898	66 70	71 16	60.00	76.14	74.23	46.25	38.17	
1899	77.63	74.08	69.46	67.62	74.14	46.50	43.55	
1900	67.05	72.67	67 58	76 38	78 76	61.12	41.80	
1901	59.73	79.31	67.60	77.16	86.18	58.68	43.72	
1902	60.68	69.38	65.21	75.16	83.70	61.65	52.20	50.22

Asylum Expenditure.

The following table shews the expenditure incurred for the maintenance of the asylums during the past year, as well as for the year which preceded it :

Asylums.	Expended, 1901.	Expended, 1902.	Increase.	Decrease.
	$ c.	$ c.	$ c.	$ c.
Toronto	100,055 75	97,696 89		2,358 86
London	116,009 00	132,382 34	16,373 34	
Kingston	74,078 33	75,360 51	1,282 18	
Hamilton	115,331 03	131,069 77	15,738 74	
Mimico	75,528 78	67,748 69		7,780 09
Brockville	75,253 91	73,140 52		2,113 39
Cobourg		21,148 32	21,148 32	
Orillia	67,418 97	60,788 33		6,630 64
Totals	623,675 77	659,335 37	54,542 58	18,882 98
Increase, 1902			35,659 60	

The following table shows the number of beds in each of the asylums, and how they were occupied at the close of the official year:

Asylums	Number of beds.			Number in residence on 30th September, 1902.			Number of vacancies.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Toronto	354	354	708	353	364	717	1	.....	1
London	482	522	1,004	486	527	1,013	.....	.....	.....
Kingston	312	279	591	319	270	589	.....	9	9
Hamilton	488	555	1,043	477	540	1,017	11	15	26
Mimico	300	300	600	297	299	596	3	1	4
Brockville	333	333	666	316	323	639	17	10	27
Cobourg	.....	144	144	.....	141	141	.....	3	3
Orillia	345	307	652	346	313	659	.....	.....	.....
Total	2,614	2,794	5,408	2,595	2,777	5,372	32	38	70

Social State.

The following information in respect to the nationalities, religious denominations and social state of the patients admitted, including transfers, as well as the aggregate admissions of all preceding years since 1841 is compiled from the records of the various institutions.

Social State.

	Admissions of year.	Total admissions.
Married	487	12,475
Unmarried	529	13,618

Nationalities.

Canadian	724	14,373
English	118	3,322
Irish	79	4,596
Scotch	50	1,973
United States	24	720
Other countries and unknown	21	1,201

Religious Denominations.

Church of England	207	5,816
Roman Catholic	197	6,532
Presbyterian	209	5,205
Methodist	259	5,767
Other denominations and unknown	144	3 771

The next table shows the annual and weekly cost per patient of each of the asylums during 1899 and 1900, together with the average daily population :

Asylums.	Year ending 30th September, 1901.					Year ending 30th September, 1902.				
	Daily average population.	Annual cost per patient.	Weekly cost per patient.	Annual cost per patient after deducting revenue.	Weekly cost per patient after deducting revenue.	Daily average population.	Annual cost per patient.	Weekly cost per patient.	Annual cost per patient after deducting revenue.	Weekly cost per patient after deducting revenue.
		$ c.	$ c.	$ c.	$ c.		$ c.	$ c.	$ c.	$ c.
Toronto	717	139 54	2 68	82 65	1 59	717	136 25	2 62	79 04	1 52
London	1,023	113 40	2 18	97 79	1 88	1,019	129 78	2 49	111 16	2 14
Kingston	588	126 03	2 45	119 20	2 29	591	127 46	2 45	116 46	2 24
Hamilton	1,027	112 29	2 16	99 28	1 91	1,027	127 62	2 46	112 74	2 13
Mimico	591	127 73	2 46	115 87	2 23	590	114 80	2 21	101 42	1 95
Brockville	610	123 36	2 37	114 07	2 19	635	115 18	2 22	103 29	1 98
Cobourg						131	161 03	3 09	258 43	3 05
Orillia	653	103 24	1 99	97 08	1 88	656	92 66	1 78	84 44	1 65
Totals	5,209	120 80	2 33	103 91	2 00	5,366	125 59	2 42	108 37	2 08

Revenue from Paying Patients.

	No. of patients.	Revenue.
Toronto Asylum	295	$41,023 81
London "	173	18,002 40
Kingston "	86	6,527 89
Hamilton "	185	14,277 42
Mimico "	60	7,910 10
Brockville "	89	7,546 34
Cobourg "	7	392 96
Orillia "	664	5,395 28
Totals	959	$101,076 20

Comparative Statement of Revenue.

The following statement shews the revenue received from the asylums for each year since 1871, together with the number of paying patients in the asylums from year to year:

	No. of patients.	Revenue.	Increase.	Decrease.
		$ c.	$ c.	$ c.
For the year ending September 30, 1871....	118	14,045 30		
" " 1872....	139	19,255 80	5,219 50	
" " 1873....	171	16,660 61		2,595 19
" " 1874....	182	20,035 77	3,373 15	
" " 1875....	231	21,875 92	1,840 15	
" " 1876....	256	21,175 93		699 99
" " 1877....	323	28,093 58	6,917 65	
" " 1878....	334	30,103 75	2,010 17	
" " 1879....	343	32,398 26	2,794 51	
" " 1880....	387	37,653 81	4,755 55	
" " 1881....	414	41,066 54	3,412 73	
" " 1882 ...	475	43,937 64	2,871 10	
" " 1883....	538	59,922 59	15,984 95	
" " 1884 ...	496	48,135 18		11,787 41
" " 1885....	509	49,620 93	1,485 73	
" " 1886....	516	53,030 05	4,309 12	
" " 1887....	514	48,742 53		5,187 52
" " 1888....	538	59,638 16	10,895 03	
" " 1889....	708	66,670 64	7,032 48	
" " 1890....	562	62,754 16		3,916 48
" " 1891....	577	48,507 42		4,246 74
" " 1892....	632	73,240 61	14,733 19	
" " 1893....	661	73,415 54	174 93	
" " 1894....	697	72,722 04		693 50
" " 1895....	743	68,290 31		4,431 73
" " 1896....	904	97,898 19	29,607 88	
" " 1897....	844	100,581 25	2,683 06	
" " 1898....	770	72,042 44		38,538 81
" " 1899....	778	74,364 54	2,322 10	
" " 1900....	846	81,650 87	7,286 33	
" " 1901....	902	90,677 46	9,026 59	
" " 1902....	959	101,076 20	10,398 74	

APPENDIX

TO THE THIRTY-FIFTH ANNUAL REPORT UPON THE ASYLUMS FOR THE INSANE AND IDIOTIC, CONTAINING THE ANNUAL REPORTS OF THE MEDICAL SUPERINTENDENTS OF THE ASYLUMS IN TORONTO, LONDON, KINGSTON, HAMILTON, MIMICO, BROCKVILLE, COBOURG, ORILLIA, TOGETHER WITH THE HOMEWOOD RETREAT, GUELPH.

ANNUAL REPORT OF THE MEDICAL SUPERINTENDENT OF THE ASYLUM FOR INSANE, TORONTO, ONTARIO, ENDING SEPTEMBER 30TH, 1902.

To Robert Christie, Esq.,
Inspector of Asylums, Ontario :

Sir, -I have the honor to herewith submit to you, as required by Statute, the sixty-second report of the operations of this Institution for the Insane for the official year ending the 30th day of September, 1902.

The tables asked for are herewith appended.

It will be seen that our recoveries were 47, and our admissions for the year were 154. This means that our recoveries were 30.5 per cent., based upon our admissions. This method is liable to error, as every year a number recover who have been longer in residence than a year, but it makes an average when adopted from year to year.

Quite a number of those discharged as improved, go on improving after they have left us, and fairly should be classed among our recoveries, because the convalescence commenced while such were under asylum treatment. A number are sent out on probation, and, although such, in a majority of cases, recover entirely, we are not notified of their condition, and cannot, therefore, say in what class to enter them in our books. We should receive credit because of our treatment before they leave. Were we to add those improved to those recovered, our percentage would be 40.2.

Our list of cured is not as large as in former years. This is accounted for largely because of the great number of chronics that were admitted. We are constantly importuned to admit old people, who are really not insane but are demented because of that decay which is natural to all humanity in greatly advanced years. Of course, we often find insanity implanted upon senile decay. This latter condition does not exempt in all cases from mental disease. Home conditions are the best for this class, but unfortunately some relatives desire to shift the trouble of responsibility upon asylum authorities. It sometimes means faith in us, but often selfish motives rule.

The population under treatment for the official year was eight hundred and seventy-eight (878). Our deaths were forty-four (44). A large number of these were aged persons.

This means a mortality of 4.5 per cent. This is somewhat below the average, which is usually 7 per cent.

Inflammatory conditions are not very prevalent among our insane, and contagious diseases have had no existence for many years.

The various glandular diseases prevail to a large extent, as can be seen by examining our death tables.

During the year we have had no suicidal deaths to record.

Seeing so many have irresistible impulses to encompass their death by violence of one kind and another, it indicates faithful oversight by our attendants.

A repetition of our wants is herewith appended. This has been done annually, in the hopes that they may be granted, not only because of their need, but because of our persistency in urging action.

Wants.

Our airing ground is very much circumscribed for the men. The few acres of Government land south of us are badly needed for recreation purposes. At present we can have no games, such as baseball, cricket and

curling, for want of room. We do not need to purchase the land, and an enclosure could be erected by our own labor. For many years this extension has been urged, but so far of no avail. Possibly the many and persistent petitions may in the end succeed. It would be a merciful provision, and would remove to a great extent the prison-like appearance, which is not creditable to a charitable institution.

The verandahs of cottages A and C need reconstructing, as they are in a rotten and dilapidated condition.

The verandah at the residence is rotten throughout and needs to be rebuilt.

The old greenhouse, built by ourselves of wood over twenty years ago, is tumbling down, and will no longer keep the frost out. All we need is the material, as our labor would erect it.

As was written last year, it would contribute very much to the efficacy of our Sunday services were two organs provided, viz., one for the Protestant service and one for the Catholic service. Second hand instruments could be bought at a low price and in good condition. The one we have in use is not a pipe instrument, and is well worn, having done service for many years.

Four new ceilings of galvanized iron are needed for the wing wards. The old ones are falling down, and if detached parts of heavy plaster were to fall upon any patients serious injury would be the result, and we would be censured.

A thousand feet of hose for our own fire reel is needed. What we have is almost useless from old age. Heavy pressure of water bursts them so they could not be trusted in case of fire.

Now that three of the other asylums of the Province are provided with, or about to be equipped, with hospitals for the proper treatment of the sick, it is possible that a plea for the erection of one in connection with this Institution may be successful. We utilize for this purpose four rooms erected by ourselves several years ago, but of necessity they are defective in many ways. Surely the parent Institution of the Province should not b overlooked.

We have again to thank our many city friends for their consideration and kindness in furnishing us excellent entertainments. Many of these were of a very high order, and a number of performers were professionals. The military bands contributed their fair share, as did also the Salvation Army Band.

The evenings which were spent in these ways were very enjoyable, and did much to enliven time which, of necessity, would be spent in the wards, and which must be more or less monotonous.

List of Concerts Given During Season of 1901 and 1902.

Prof. A. H. French	Oct. 1, 1901.
James Baylis and Friends	Nov. 5, 1901.
Miss E. J. Sans (Trinity Mission Band)	Dec. 3, 1901.
Cadet Band	Dec. 4, 1901.
Staff Officers, Salvation Army Band	Dec. 10, 1901.
James Baylis and Friends	Dec. 16, 1901.
James Baylis and Friends	Jan 27, 1902.
Mr. Thos. Yellowlees and Friends	Feb. 11, 1902.
St. Margaret's Church Choir	Feb. 20, 1902.
Sons of Scotland, Robert De Bruce Camp	Feb. 27, 1902.
Geo. Parker and Friends	Mar. 6, 1902.
James Baylis and Friends	Nov. 10, 1902.

Staff Officers, Salvation Army Band .....Nov. 26, 1902.
St. John's Presbyterian Choir.. .....Nov. 27, 1902.
Mrs. Langstone and Pupils .....Apr. 3, 1902.
Broadway Avenue Congregational Church Choir.....Apr. 15, 1902.
James Baylis and Friends .....Apr. 21, 1902.
Queen's Own Band .....May 6, 1902.
West End Y.M.C.A. .....May 12, 1902.
Mr. R. E. Port, entertainment with phonograph ....May 15, 1902.

Religious Services.

We are favored every Sunday with three services. The Episcopal Church at 9.30 a.m.; the other Protestant service at 3 p.m.

The Ministerial Association makes out a list of ministers who promise to officiate in the afternoon.

The Roman Catholic service is at 4 o'clock p.m.

All of these clergy come cheerfully, and have done so for over a quarter of a century without remuneration or fee. We feel grateful to them, and their labor of love is much appreciated by a large proportion of our inmates who attend.

Structures.

No permanent structures have been erected, except a bowling alley and gymnasium, which is being completed, and which will be a good exercise building, especially during the winter. It is ninety feet by thirty feet. The work was done by our own workmen and patients. We had excellent masons and carpenters, who were well enough to give us good help in the erection.

We were in hopes that the projected and sanctioned additon to our bakery could be erected. So far nothing has been done. Possibly the building may be erected before winter sets in. We are in need of the room.

There have been few changes among the Staff during the year. Dr. R. W. Bell was transferred to London Asylum on June the 20th. We found him to be a useful officer. His work was performed satisfactorily during his residence of several years.

Dr. J. C. Mitchell was appointed to fill the vacancy, and entered upon his duties on July 1st. He is proving himself a good Medical Officer.

In a large organization like this, and where so many are living together, as might be expected, every now and then petty friction arises. I am pleased to say that there has been little disagreement, and nearly all seemed anxious to do conscientious work, for which I am thankful.

I have the honor to be, sir,

Your obedient servant,

DANIEL CLARK,
Medical Superintendent.

ANNUAL STATISTICAL REPORT

Of the operations of the Asylum for Insane, Toronto, for the year ending 30th September, 1902.

TABLE No. 1.

Shewing movements of patients in the Asylum for the official year ending September, 1902.

	Male.	Female.	Total.	Male.	Female.	Total.
Remaining, October 1st, 1901				362	362	724
Admitted during year :—						
By Lieutenant-Governor's Warrant	11	17	28			
" Medical Certificate	53	73	126			
				64	90	154
Total number under treatment during year				426	452	878
Discharges during year :—						
As recovered	17	30	47			
" improved	12	11	23			
" unimproved	10	4	14			
Total number of discharges during year	39	45	84			
Died	33	11	44			
Eloped	1	0	1			
Transferred	0	32	32			
				73	88	161
Remaining in Asylum, 30th September, 1902				353	364	717
Total No. admitted since opening of Asylum	2,366	2,333	4,699			
" discharged	1,230	1,006	2,236			
" died	88	13	101			
" eloped	1	0	1			
" transferred	583	612	1,195			
				4,267	3,964	8,231
" remaining, 30th September, 1902				353	364	717
Number of applications on fyle				5	14	19

TABLE No. 2

Shewing the maximum and minimum number of patients resident in the Asylum, the total number of days' stay of patients, and the daily average number of patients in the Asylum, from the 1st October, 1901, to 30th September, 1902.

	Male.	Female.	Total.
Maximum No. of patients in residence (on the 18th Dec. 1901)..	364	367	731
Minimum " " " (on the 28th of Jan'y. 1902.)	360	338	698
Collective days' stay of all patients in residence during year....	130,670	131,035	261,705
Daily average population	358	359	717

	Admissions of Year.			Total Admissions since Opening.		
	Male.	Female.	Total.	Male.	Female.	Total.
Social State.						
Married	32	60	92	2,104	2,654	4,758
Widowed						
Single	32	30	62	2,516	1,674	4,190
Not reported						
Total	64	90	154	4,620	4,328	8,948
Religion.						
Presbyterians	19	12	31	1,031	945	1,976
Episcopalians	14	27	41	1,314	1,225	2,539
Methodists	13	32	45	878	890	1,768
Baptists	4	2	6	116	97	213
Congregationalists		3	3	41	64	105
Roman Catholics	8	8	16	881	817	1,698
Mennonites				2		2
Quakers				6	1	7
Infidels				1		1
Other denominations	4	3	7	256	236	492
Not reported	2	3	5	94	53	147
Total	64	90	154	4,620	4,328	8,948
Nationalities.						
English	12	18	30	807	721	1,528
Irish	4	7	11	1,078	1,070	2,148
Scotch	5	4	9	504	436	940
Canadian	40	59	99	1,908	1,793	3,701
United States	2	2	4	151	175	326
Other countries	1		1	137	111	248
Unknown				35	22	57
Total	64	90	154	4,620	4,328	8,948

TABLE No. 3.

Shewing the Counties from which patients have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total Admittance.		
	Male.	Female.	Total.	Male.	Female.	Total.
Algoma District	1		1	10	10	20
Brant		1	1	48	59	107
Bruce				24	13	37
Carleton	4	1	5	79	62	141
Dufferin				6	7	13
Elgin				32	24	56
Essex				17	13	20
Frontenac				101	70	171
Grey				110	88	198
Haldimand		1	1	26	25	51
Halton		2	2	81	65	146
Hastings	1		1	111	87	198
Huron	2	2	4	63	57	120
Kent				26	23	49
Lambton		1	1	29	24	53
Lanark				50	43	93
Leeds and Grenville	1		1	60	50	110
Lennox and Addington				25	16	41
Lincoln				97	83	180
Middlesex	1	1	2	82	77	159
Muskoka District				14	13	27
Norfolk				18	20	38
Northumberland and Durham	1	2	3	297	290	587
Ontario	1	2	3	180	169	349
Oxford				36	40	76
Peel		2	2	126	123	249
Perth				47	43	90
Peterborough	1		1	94	89	183
Prescott and Russell				13	17	30
Prince Edward				26	26	52
Renfrew		1	1	4	10	14
Simcoe	1		1	134	138	272
Stormont, Dundas and Glengarry				61	60	121
Victoria	1	1	2	93	67	160
Waterloo	2	1	3	50	53	103
Welland				50	46	96
Wellington	1		1	144	144	288
Wentworth		1	1	227	210	437
York	46	71	117	1,754	1,810	3,564
Not classed				175	64	239
Total admissions	64	90	154	4,620	4,328	8,948

TABLE No. 4.

Shewing the Counties from which warranted cases have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total admissions.		
	Male.	Female.	Total.	Male.	Female.	Total.
Algoma District				5	1	6
Brant				2	3	5
Bruce				5		5
Carleton				12	1	13
Dufferin				3		3
Elgin				1		1
Essex				1	2	3
Frontenac				23	13	36
Grey				58	17	75
Haldimand				5	1	6
Halton		1	1	4	2	6
Hastings				53	26	79
Huron				3		3
Kent				6	2	8
Lambton				3	2	5
Lanark				9	6	15
Leeds and Grenville				11	5	16
Lennox and Addington				11		11
Lincoln				13	9	22
Middlesex						
Muskoka District				2	1	3
Norfolk				1	1	2
Northumberland and Durham				61	27	88
Ontario				60	29	89
Oxford				3	5	8
Peel				31	8	39
Perth				7		7
Peterborough				40	14	54
Prescott and Russell				5	2	7
Prince Edward				3		3
Renfrew				4	1	5
Simcoe				24	12	36
Stormont, Dundas and Glengarry				13	4	17
Victoria				51	24	75
Waterloo				9	4	13
Welland				6	3	9
Wellington				13	3	16
Wentworth				38	9	47
York	11	16	27	553	331	934
Not Classed				85	14	99
Total admissions	11	17	28	1,237	632	1,869

TABLE No. 5

Shewing the length of Residence in the Asylum of those discharged during the year.

No.	Initials.	Sex.	When admitted.	When discharged.	Remarks.
1	L.S	F	Nov. 21, 1898	Oct. 2, 1901	Recovered.
2	W.H	M	Aug 19, 1901	" 5, "	"
3	A.K	F	May 22, "	" 7, "	"
4	C N	F	July 17, "	" 14, "	"
5	C.L	F	May 9, "	" 17, "	Improved.
6	M.C	F	July 13, "	" 24, "	Recovered.
7	J.M.L	M	Oct. 27, 1898	Nov. 1, "	Improved.
8	P.F	M	Dec. 22, "	" 1, "	Recovered.
9	A.S	M	Aug. 13, 1896	" 14, "	"
10	W.J.M	M	Sept. 9, 1901	" 28, "	Unimproved.
11	J R	M	Aug. 18, 1899	Dec. 8, "	Recovered.
12	R.S	M	Sept. 28, 1901	" 18, "	Unimproved.
13	H.T	F	June 18, "	" 18, "	Recovered.
14	J.R,P	M	Dec. 14, 1900	" 24, "	Unimproved.
15	A T.B	M	June 19, 1901	Jan. 2, 1902	Recovered.
16	J.F	M	Aug. 26, 1899	" 2, "	Improved
17	M.O'D	F	Aug. 16, 1901	" 11, "	Recovered.
18	A.B	M	Aug. 22, 1901	" 23, "	Unimproved.
19	P.C	M	Nov. 7, 1901	" 27, "	Recovered.
20	M.B	F	Dec 26, 1898	" 28, "	Improved.
21	M.S	F	Nov. 30, 1901	Feb. 11, "	Recovered.
22	M.C.T	F	Aug. 11, 1897	" 28, "	"
23	F.W.N	M	June 1, 1901	Mar. 1, "	"
24	T.H	M	Oct. 7, "	" 8, "	"
25	A.H,L	F	Dec. 18, "	" 8, "	"
26	L.F	F	Aug. 6, "	" 14, "	"
27	A.W.W	M	Jan. 28, 1902	" 15, "	Improved.
28	J.F.D	M	Dec. 14, 1901	" 18, "	Unimproved.
29	M.A.B	F	Nov. 6, "	" 29, "	Improved.
30	E.H.S	F	July 20, "	" 29, "	Recovered.
31	C.F.W	M	Feb. 26, "	" 29, "	Unimproved.
32	A.F.H	M	July 8, 1900	" 30, "	Recovered.
33	C.R	F	Oct. 16, 1901	April 1, "	Unimproved.
34	H.B.E	M	Mar. 15, 1902	" 3, "	Improved.
35	F.F	M	May 30, 1901	" 4, "	Improved.
36	C.S.L	M	Feb. 10, 1902	" 4, "	Recovered.
37	A.M.H	F	Feb. 4, "	" 7, "	Improved.
38	J.C	M	Mar. 2, "	" 10, "	"
39	E.R W	F	Jan. 11, "	" 14, "	Recovered.
40	A.M	M	April 9, "	" 15, "	Improved.
41	R.G.McB	M	April 11, "	" 15, "	Unimproved.
42	M.F	M	Oct. 28, 1900	" 17, "	Recovered.
43	J.F.G	M	Jan. 24, 1901	" 18, "	"
44	A McL	F	Mar. 22, 1902	" 19, "	"
45	C H	F	Feb. 3, "	" 19, "	"
46	C.C	F	Mar. 3, 1888	May, 2, "	Improved.
47	P.D	M	Sept. 21, 1901	" 9, "	Recovered.
48	W.H.B	M	Mar. 18, 1902	" 10, "	Improved.
49	M E.H	F	Sept. 23, 1901	" 14, "	Recovered.
50	J.S	M	Jan. 13, 1900	" 26, "	Improved.
51	E J.F	F	Feb. 2, 1902	" 28, "	Recovered.
52	M.A.D	F	Nov. 3, 1901	" 30, "	"
53	E.C	F	April 7, 1902	" 31, "	"
54	A.H	F	April 1, "	June 3, "	"
55	S.G	F	Feb. 20, "	" 5. "	"
56	B.G	F	Sept. 21, 1900	" 9, "	Unimproved.
57	R.T.R	M	June 2, 1902	" 14, "	Recovered.
58	M.A.H	M	May 8, "	" 17, "	Improved.
59	I.S	F	June 9, "	July 1, "	Recovered.
60	J.D	F	Feb. 26, "	" 7, "	"
61	K.L	M	Sept. 8, 1901	" 8, "	Improved.
62	J.A.F	F	April 8, 1900	" 9, "	"
63	J.B	M	Jan. 28, 1902	" 11, "	Recovered.
64	H.M	F	July 12, "	" 30, "	"
65	A.E.H	F	July 5, "	Aug. 12, "	"

TABLE No. 5.—*Concluded.*

Shewing the length of Residence in the Asylum of those discharged during the year.

No.	Initials.	Sex.	When admitted.	When discharged.	Remarks.
66	L.C	F....	Mar. 24, "	Aug. 14, "	Improved.
67	F.McA....	M...	Oct. 28, 1901	" 16, "	Recovered.
68	J.K.....	M ..	July 24, 1902	" 19, "	Unimproved.
69	G.McK ...	M ..	Feb. 7, "	" 29, "	Recovered.
70	A.B	M ..	Mar. 17, "	" 30, "	Unimproved.
71	L.H	F.. .	July 2, 1901.....	Sept. 3, "	Improved.
72	M.D.....	F....	April 15, 1902.....	" 6, "	Recovered.
73	A.I.H....	F....	July 28, "	" 8, "	"
74	S.S.....	F....	June 8, "	" 8, "	"
75	R.C	M...	Sept. 2, "	" 13, "	Improved
76	E.M.....	F....	Sept. 18, 1898.....	" 13, "	Recovered.
77	A.F	F....	June 24, "	" 20, "	"
78	E.M.....	F....	April 26, "	" 25, "	Unimproved.
79	M.W.....	F	Jan. 21, 1901.....	" 26, "	Improved.
80	J.T.H.....	M ..	April 17, 1902.....	" 27, "	Unimproved.
81	S.R.	F....	Feb. 5, 1900.....	" 29, "	Improved.
82	E.J.R	F	Jan. 17, 1902	April 22, "	Recovered.
83	H.L	F....	July 12, "	July 30, "	"
84	E.J.T.....	F....	Dec. 3, 1901.....	Sept. 29, "	Unimproved.

TABLE No. 6.

Shewing age, length of residence, and proximate cause of death of those who died during the year ending 30th September, 1902.

No.	Initials.	Sex.	Age.	Date of death.	Residence in Asylum. Years.	Months	Days	Approximate cause of death.
1	W.H	M ..	24	Oct. 1, 1901	.....	.....	5	Acute Mania.
2	B.O	F....	79	" 2 "	9	.....	.....	Heart Disease.
3	A S	M ..	49	" 7 "	7	7	20	Heart Disease.
4	J.F.	M ..	59	" 24 "	37	6	19	Heart Disease.
5	J.C.J	M ..	68	Nov. 7 "	.....	1	28	Senile Decay.
6	N.G	M ..	68	" 10 "	43	.....	23	Heart Disease.
7	J.R.B	M...	26	Dec. 6 "	5	1	15	Heart Disease.
8	H.N	F..	65	" 21 "	.....	8	2	Chronic Diarrhœa.
9	E.H	F..	62	Jan. 2, 1902	16	5	3	Phthisis.
10	R. G.O	M ..	44	" 3 "	.....	2	11	Exhaustion of Mania
11	T.S	M ..	38	" 30 "	3	4	20	Heart Disease.
12	J. McK...	M ..	80	Feb. 10 "	40	4	15	Senile Decay.
13	D.McM ...	M ..	49	" 14 "	5	6	3	Phthisis.
14	P. H	M ..	64	" 24 "	37	2	23	Phthisis.
15	J.P.	M ..	57	" 28 "	.....	3	11	Exhaustion Melancholia.
16	E.A.C	M ..	56	Mar. 12 "	.....	3	3	Exhaustion of Mania.
17	J.V.	M ..	42	" 15 "	2	7	14	Epilepsy.
18	M.J.D	F....	49	" 19 "	3	4	14	General Paresis.
19	R.G.K.....	M ..	46	Apl. 3 "	1	.....	19	Epilepsy.
20	J.P	M ..	64	" 5 "	.....	9	15	Epilepsy.
21	N.F	F....	55	" 12 "	10	1	5	Epilepsy.
22	P.F	M ..	35	" 25 "	1	7	6	Marasmus.
23	F.G.	M ..	52	" 28 "	2	11	2	General Paresis.
24	M B	M ..	75	" 30 "	24	3	28	Purpura Hemmorhagica.
25	A.S	M ..	70	May 1 "	10	1	10	Heart Disease.
26	M.B	F....	67	" 9 "	3	5	27	Chronic Diarrhœa.
27	J.E.H	M ..	60	" 18 "	1	.....	17	Septicæmia.
28	C.H.H	M ..	64	" 20 "	.....	.....	8	Exhaustion of Mania.
29	M.C	F....	82	" 28 "	5	7	6	Cirrhosis of Liver.
30	A.G	M ..	40	June 5 "	1	.....	25	General Paresis.
31	P.G.....	M ..	39	" 9 "	19	7	2	Cirrhosis of Liver.
32	M.P	F....	48	" 16 "	.....	.....	5	Exhaustion of Melancholia
33	I.R	F..	65	" 20 "	.....	4	15	Bright's Disease.
34	J.W.S	M ..	49	July 6 "	1	1	21	General Paresis.
35	W.J.....	F....	80	" 16 "	1	9	24	Senile Decay.
36	A.B.B	F....	60	" 25 "	11	9	10	Cancer of Uterus.
37	W.P	M ..	56	" 28 "	1	3	19	General Paresis.
38	W McC ...	M ..	88	Aug. 17 "	.....	8	29	Senile Dementia.
39	F.J.R	M ..	29	" 21 "	.....	5	2	General Paresis.
40	J.W	M ..	30	" 22 "	4	5	3	Cardiac Exhanstion.
41	N.C	M ..	32	" 25 "	8	8	8	Abcess of Bowel.
42	A.M	M ..	66	" 25 "	.....	5	7	Ulcerative Gastritis.
43	C.E.M	M ..	44	" 29 "	.....	.....	4	Exhaustion of Mania.
44	C.R.H	M ..	48	" 31 "	.....	2	20	General Paresis.

TABLE No. 7.

Shewing trades, callings and occupations of patients admitted into the Asylum.

Trades, callings and occupations.	During the year.			During former years.			Total.
	Males.	Females	Total.	Males.	Females	Total.	
Agents	2		2	19		19	21
Architects				2		2	2
Actuaries							
Actors				1	1	2	2
Artists	1		1	4	4	8	9
Book-keepers	1		1	42	1	43	44
Bakers				32		32	32
Bricklayers				14		14	14
Butchers				29		29	29
Blacksmiths				55		55	55
Brass-finishers				2		2	2
Brewers				11		11	11
Builders				8		8	8
Barbers				2		2	2
Broom-makers							
Barristers	2		2	8		8	10
Bookbinders				1	3	4	4
Brickmakers				7		7	7
Bridge tenders				1		1	1
Brakesmen				2		2	2
Commercial travellers	1		1	27		27	28
Cabinet-makers				10		10	10
Consuls							
Confectioners				2		2	2
Coopers				19		19	19
Carpenters	3		3	162		162	165
Clerks	4	2	6	203	9	212	218
Clergymen				38		38	38
Carriage-makers				5		5	5
Cooks				2	10	12	12
Carders							
Captains of steamboats				2		2	2
Cigarmakers				9		9	9
Custom house Officers				3		3	3
Coppersmiths				1		1	1
Coachmen				3		3	3
Civil Servants	3	2	5	12		12	17
Clock Cleaners				1		1	1
Carters				1		1	1
Dyers				1		1	1
Domestic servants, all kinds		14	14	5	1,091	1,096	1,110
Dressmakers					34	34	34
Detectives							
Druggists	1		1	2		2	3
Dentists				21		21	21
Doctors							
Engineers	1		1	27		27	28
Editors				3		3	3
Engravers				3		3	3
Farmers	10		10	1,162	33	1,195	1,205
Fishermen				1		1	1
Founders				2		2	2
Ferrymen							
Furriers				1		1	1
Firemen				1		1	1
Farmers daughters					26	26	26
Gardeners				17		17	17
Grocers				12	1	13	13
Glass-blowers							

TABLE No. 7.—*Continued.*

Shewing trades, callings and occupations of patients admitted into the Asylum.

Trades, callings and occupations.	During the year.			During former years.			Total.
	Males.	Females	Total.	Males.	Females	Total.	
Gentlemen				42		42	42
Glove-makers					1	1	1
Grooms				1		1	1
Gun-smiths				2		2	2
Hucksters				1		1	1
Hatters				1		1	1
Hostlers				2		2	2
Hunters				1		1	1
Harness-makers				14		14	14
Housekeepers		55	55		1,562	1,562	1,617
Hack-drivers				3		3	3
Inn-keepers				11		11	11
Ironmongers				1		1	1
Jewellers				14	1	15	15
Janitors	2		2	2		2	4
Labourers	10		10	994		994	1,004
Laundresses					6	6	6
Ladies					129	129	129
Lawyers				26		26	26
Lumbermen	1		1	4		4	5
Milliners					30	30	30
Masons				44		44	44
Machinists	2		2	28		28	30
Matchmakers							
Millers				33		33	33
Moulders				2		2	2
Merchants	3		3	127	2	129	132
Mechanics	1		1	31		31	32
Music-teachers				9	15	24	24
Marble-cutters				1		1	1
No occupation	3	7	10	165	432	597	607
Night-watchmen				1		1	1
Nurses					15	15	15
Not stated	1	7	8	205	334	539	547
Organ-builders				1		1	1
Other occupations	1	2	3	170	40	210	213
Professors of Music				2		2	2
Plasterers	1		1	3		3	4
Pensioners				1		1	1
Photographers	1		1	6		6	7
Prostitutes					2	2	2
Painters	2		2	51		51	53
Printers	1		1	41		41	42
Peddlers				25		25	25
Physicians				38	1	39	39
Pump-makers				3		3	3
Railway Foremen				4		4	4
Railway Conductors				3		3	3
Spinsters					219	219	219
Sailors				34		34	34
Students	1		1	49	18	67	68
Spinners							
Sisters of Charity					3	3	3
Soda-water manufacturers							

TABLE No. 7.—*Concluded.*

Shewing trades, callings and occupations of patients in the Asylum.

Trades, callings and occupations.	During the year.			During former years.			Total.
	Males.	Females	Total.	Males.	Females	Total.	
Stone-cutters				4		4	4
Showmen							
Saddlers				2		2	2
Shoemakers	2		2	88		88	90
Seamstresses					100	100	100
Soap-makers							
Slaters				1		1	1
Station-masters							
Soldiers				10		10	10
Salesmen	2		2	7	4	11	13
Surveyors				2		2	2
Sail and tent makers				1		1	1
Shop-keepers				5	2	7	7
Ship-builders				1		1	1
Stenographers				4	1	5	5
Teachers				63	86	149	149
Tinsmiths				23		23	23
Tavern-keepers				6		6	6
Tailors	1	1	2	87	5	92	94
Tanners							
Teamsters				10		10	10
Toll-gate keepers							
Watchmakers				4		4	4
Wood-workers				2		2	2
Weavers				12	5	17	17
Wheelwrights				1		1	1
Waggon-makers							
Unknown or other employments				29	12	41	41
Total	64	90	154	4,556	4,238	8,794	8,948

TABLE No. 8.

Shewing causes of Insanity.

CAUSES OF INSANITY. In respect of the admissions for the year ending 30th September, 1902.	Number of instances in which each cause was assigned.					
	As predisposing cause.			As exciting cause.		
Moral.	Male.	Female.	Total.	Male.	Female.	Total.
Domestic troubles, including loss of relatives or friends	.....	1	1	.....	2	2
Religious excitement	1	.....	1	1	1	2
Adverse circumstances, including business troubles	3	1	4	3	2	5
Love affairs, including seduction	.....	.....	.....	.....	.....	.....
Mental anxiety, "worry"	2	5	7	3	9	12
Fright and nervous shocks	.....	.....	.....	1	.....	1
Physical.						
Intemperance in drink	6	.....	6	6	.....	6
Intemperance, sexual	.....	.....	.....	.....	.....	.....
Veneral disease	1	.....	1			
Self-abuse, sexual	1	1	2	1	1	2
Over-work	3	1	4	4	2	6
Sunstroke	.....	.....	.....	.....	.....	.....
Accident or injury	2	.....	2	1	.....	1
Pregnancy	.....	.....	.....	.....	2	2
Puerperal	.....	2	2	.....	3	3
Lactation	.....	4	4	.....	4	4
Puberty and change of life	.....	7	7	.....	6	6
Uterine disorders	.....	.....	.....	.....	.....	.....
Brain disease, with general paralysis	6	.....	6	6	.....	6
Brain disease, with epilepsy	5	4	9	5	4	9
Other forms of brain disease	.....	.....	.....	.....	.....	.....
Other bodily diseases or disorders, including old age	4	4	8	4	4	8
Fevers	1	.....	1	2	.....	2
Hereditary.						
With other ascertained cause in combination	.....	.....	.....	.....	.....	.....
With other combined cause not ascertained	6	15	21			
Congenital.						
With other ascertained cause in combination	.....	.....	.....	.....	.....	.....
With other combined cause not ascertained	.....	2	2			
Unknown	23	43	66	27	50	77
Total	64	90	154	64	90	154

TABLE No. 9.

Shewing the Probational Discharges and the result thereof.

Reg. No.	Sex.	Initials.	Date of Probational Discharge.	Term of Probation.	Result.
8014	M	A. S	Oct. 5, 1901	1 month	Discharged recovered.
8530	M	J. R.	Nov. 8, "	1 "	" "
8779	F	M. O	" 11, "	2 "	" "
8753	F	H. T	" 18, "	1 "	" "
8754	M	A. T. B.	" 19, "	2 "	" "
8709	M	C. B.	" 23, "	1 "	Returned.
8781	M	A. B.	Dec. 23, "	1 "	Discharged unimproved
8196	F	M. C. T.	" 31, "	2 "	" recovered.
8813	F	M. S.	Jan'y. 11, 1902	1 "	" "
8657	M	A. F. H.	" 30, "	2 "	" "
8746	M	F. W. N.	Feb'y. 1, "	1 "	" "
6264	F	C. C	" 14, "	2 "	" improved.
8797	M	T. H.	Mar. 3, "	1 "	" recovered.
8623	F	J. A. F.	" 8, "	4 "	" improved.
8847	M	C. S. L.	" 15, "	3 "	" recovered.
8681	M	M. F.	" 26, "	2 "	" "
8826	F	E. R. W	" 28, "	2 "	" "
8833	F	E. J. F.	" 28, "	2 "	" "
8589	M	J. S.	" 29, "	3 "	" improved.
8790	M	P. D	April 26, "	1 "	" recovered.
8830	M	J. B.	May 10, "	2 "	" "
8876	F	S. D.	June 4, "	6 "	Still out.
8803	M	F. McF.	" 15, "	2 "	Discharged recovered.
8769	F	L. H.	July 5, "	1 "	Returned.
8895	F	S. S.	Aug. 4, "	1 "	Discharged recovered.
8864	M	A. S. B.	" 16, "	1 "	" unimproved
8393	F	E. M.	" 22, "	1 "	" recovered.
8595	F	S. R.	" 29, "	1 "	" improved.
8780	F	B. F	Sept. 4, "	3 "	Still out.
8700	F	M. W.	" 4, "	1 "	Discharged improved.
8917	F	E. P.	" 13, "	2 "	Still out.
8860	M	W. M. T.	" 13, "	2 "	Returned.
8464	F	M. J. T.	" 23, "	1 "	Still out.
8734	M	G. W. K.	" 27, "	1 "	" "
8670	F	E. J. S.	" 27, "	1 "	" "
8158	F	C. W.	" 29, "	1 "	" "

SUMMARY OF PROBATIONAL DISCHARGES.

	Males.	Females	Total.	Males.	Females	Total.
Number to whom probational leave was granted				17	19	36
Discharged, recovered	11	8	19			
" improved	1	4	5			
" unimproved	2	0	2			
Died before expiration of leave	0	0	0			
Returned to Asylum	2	1	3			
Absent on probation on 30th September, 1902	1	6	7	17	19	36

TABLE No. 10.

Shewing in quinquennial period the ages of those admitted, recovered and died during the year.

Ages.	Admitted.			Recovered.			Died.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
From 10 to 15 years	.....	.....	.....	.....	.....	.....	.....	.....	.....
" 15 to 20 "	1	4	5	1	1	2	.....	.....	.....
" 20 to 25 "	8	8	16	4	1	5	1	.....	1
" 25 to 30 "	9	10	19	4	4	8	2	.....	2
" 30 to 35 "	6	14	20	.....	5	5	2	.....	2
" 35 to 40 "	6	10	16	1	4	5	3	.....	3
" 40 to 45 "	4	7	11	1	3	4	4	.....	4
" 45 to 50 "	4	10	14	1	1	2	5	2	7
" 50 to 55 "	3	9	12	.....	3	3	1	.....	1
" 55 to 60 "	11	6	17	4	4	8	4	1	5
" 60 to 65 "	6	7	13	....	3	3	4	2	6
" 65 to 70 "	2	4	6	1	.....	1	3	3	6
" 70 to 75 "	2	....	2	.....	.....	.....	1	.....	1
" 75 to 80 "	1	1	2	.....	1	1	1	1	2
" 80 to 85 "	.....	....	.....	.....	.....	.....	1	2	3
" 85 to 90 "	1	.....	1	.....	.....	.....	1	.....	1
" 90 to 95 "	.....	.....	.....	.....	....	....	.....	.....	.....
Unknown	.....	.....	...	.....	.....	.....	.....	.....	.....
Totals	64	90	154	17	30	47	33	11	44

TABLE No. 11.

Periods.	Duration of insanity prior to admission.	Length of residence of those remaining in Asylum on 30th September.	Periods of treatment of those who were discharged cured during the year.	Periods of treatment of those who were discharged improved during the year.	Periods of treatment of those who were discharged unimproved during the year.
Under 1 month	32	17	4	3	2
From 1 to 2 months	22	6	5	4	1
" 2 to 3 "	12	12	7	2	2
" 3 to 4 "	18	15	5	.....	1
" 4 to 5 "	7	5	3	2	1
" 5 to 6 "	1	3	4	1	4
" 6 to 7 "	7	9	4	.....	.....
" 7 to 8 "	1	16	3	.....	.....
" 8 to 9 "	1	4	1	.....	.....
" 9 to 10 "	3	6	2	....	1
" 10 to 11 "	.....	3	.....	2	.....
" 11 to 12 "	.....	6	.....	.....	.....
" 12 to 18 "	8	27	2	1	1
" 18 months to 2 years	2	13	1	1	1
" 2 to 3 years	10	52	3	4	.....
" 3 to 4 "	7	35	1	2	.....
" 4 to 5 "	5	46	....	.....	.....
" 5 to 6 "	7	43	1	.....	.....
" 6 to 7 "	2	26	.....	.....	.....
" 7 to 8 "	1	38	.....	.....	.....
" 8 to 9 "	.....	27	.....	.....	.....
" 9 to 10 "	.....	40	.....	.....	.....
" 10 to 15 "	2	118	1	1	.....
" 15 to 20 "	1	49	.....	.....	.....
" 20 years and upwards	5	101	.....	....	.....
Totals	154	717	47	23	14

TABLE No. 12.

Shewing the nature of employment and the number of days work performed by patients during the year.

Nature of employment.	Number of patients who worked.	Days worked.		
		Male.	Female.	Total.
Carpenter's shop	3	936		936
Tailor's shop	4	868		868
Shoe shop	3	864		864
Engineer's shop	6	2,160		2,160
Mason work	1	312		312
Wood yard and coal shed	8	2,880		2,880
Bakery	3	1,080		1,080
Laundry	40	2,016	10,224	12,240
Dairy	6	2,160		2,160
Butcher's shop	1	312		312
Painting	3	936		936
Garden	8	2,496		2,496
Grounds	10	3,120		3,120
Stable	6	2,160		2,160
Kitchen	9	3,245		3,245
Dining rooms	73	8,820	15,760	24,580
Officers' quarters	5		1,800	1,800
Sewing rooms	4		1,248	1,248
Knitting	32		9,216	9,216
Mending	38		10,944	10,944
Wards	125	14,400	20,600	35,000
Store	1	312		312
General	74	11,520	15,120	26,640
Tin shop	1	312		312
Upholstering	1	312		312
Sewing in wards	44		12,692	12,692
Total	509	61,221	97,604	158,825

TABLE No. 13.

Shewing the Counties and Districts from which the patients remaining in residence on the 30th September, 1902, were originally received.

Counties and Districts.	Males.	Females.	Total.
Algoma District	2	2	4
Brant	1	3	4
Bruce	1	3	4
Carleton	8	2	10
Dufferin	1		1
Dundas			
Durham	4	10	14
Elgin	1	1	2
Essex	1		1
Frontenac		2	2
Glengarry	1		1
Grenville	1		1
Grey	8	5	13
Haldimand			
Halton	4	5	9
Hastings	7	1	8
Huron	1	6	7
Kent	1		1
Lambton	1	1	2
Lanark	1	1	2
Leeds	3	1	4
Lennox and Addington	1		1
Lincoln	1	5	6
Middlesex	2		2
Muskoka District	3	2	5
Nipissing District	1	1	2
Norfolk			
Northumberland	14	8	22
Ontario	8	13	21
Oxford	2	2	4
Parry Sound District	1		1
Peel	7	9	16
Perth	1	1	2
Peterborough	11	3	14
Prescott			
Prince Edward			
Rainy River District			
Renfrew	1	1	2
Russell			
Simcoe	7	8	15
Stormont	1		1
Thunder Bay District	2	1	3
Victoria	9	6	15
Waterloo	3	3	6
Welland	3	2	5
Wellington	3	8	11
Wentworth	4	5	9
York	217	243	460
Not classed, unknown, etc	4		4
Total	353	364	717

TABLE No. 14.

Patients transferred to other Asylums.

Initials of persons transferred.	Age.	Sex.		County originally admitted from.	Nationality.						Religious Denomination.					Social state.		Duration of insanity prior to admission.		Admitted by.		Occupation.	Asylum transferred to.
		Male.	Female.		Canadian.	English.	Irish.	Scotch.	United States.	Other countries or unknown.	Church of England.	Roman Catholic.	Presbyterian.	Methodist.	Other Denominations.	Married or Widowed.	Unmarried.	Years.	Months.	Warrant.	Certificate.		
H. W.			1	Lincoln					1		1					1			1	1		Housewife	Hamilton.
E. H.	57		1	York			1						1			1		5		1		"	"
C. D.	21		1	Simcoe	1										1		1		2	1		None	Cobourg.
M. B.	39		1	Durham	1									1		1					1	Housewife	"
A. M.	43		1	Northumberland	1							1					1	4			1	Milliner	"
A. H.	39		1	Ontario	1									1			1	2			1	Servant	"
A. B.	49		1	Peterborough	1							1				1		5			1	Housewife	"
O. M.	27		1	Durham	1										1		1		10		1	Clerk	"
E. Y.	42		1	Peterborough	1									1			1		3		1	Music Teacher	"
M. A. C.	34		1	Grey	1								1				1		1		1	None	"
E. B.	51		1	Ontario		1					1					1		1		1		Housewife	"
M. McP.	62		1	Victoria	1									1		1			1	1		"	"
J. B.	70		1	Durham			1							1			1				1	Not stated	"
A. B.	62		1	York	1						1						1	19			1	None	"
M. J. W.	55		1	York	1									1			1	13		1		Bookbinder	"
M. J. E.	44		1	Peterborough	1									1		1		2		1		Housewife	"
E. B.	43		1	Ontario	1								1				1		2	1		None	"
A. G.	54		1	Ontario	1								1				1	2		1		"	"
E. R.	39		1	Peterborough	1							1				1		2		1		Housewife	"
R. L.	65		1	Grey			1					1				1			3	1		"	"
B. T.	31		1	Durham	1									1			1	2			1	None	"
E. M.	50		1	York			1					1				1			8		1	"	"
E. K.	36		1	York	1									1			1	2			1	"	"
A. G.	55		1	Durham	1								1				1	15			1	"	"
A. W.	55		1	Victoria	1									1			1		6		1	Teacher	"
S. R.	48		1	Ontario	1						1						1	4		1		None	"
M. T.	61		1	Durham	1								1				1		6		1	"	"
C. T.	55		1	Ontario	1									1			1	1			1	Servant	"
M. P.	44		1	Simcoe	1									1		1			3		1	Housewife	"
J. B.	53		1	Peterborough	1								1				1	1			1	Teacher	"
J. M.	69		1	York			1				1						1				1	Servant	"
M. D.	54		1	Middlesex	1								1			1		3			1	Housewife	London.

TABLE No. 15.

Shewing work done in women's wards.

Articles.	Made.	Repaired.
Aprons	466	1,586
" uniform	40	
Blouses	12	65
Blinds	61	86
Blankets		128
Curtains	115	62
Cushions, sofa	38	27
" " (embroidered)	4	
Cushion covers (drawn work)	8	
Chemises	412	1,143
Counterpanes hemmed	46	98
Clothes bags	67	196
Caps	40	
Dresses	165	1,530
" uniform	25	
Drawers	246	1,132
Drapes, mantle	8	
Dusters	38	
Doylies (drawn work)	30	
" (lace)	9	
Guernseys		480
Handkerchiefs (lace)	6	
" (fancy)	15	
Hats, trimmed	45	
Mats, table	50	
" toilet	22	
Nightgowns	251	856
Pillowcases	1,017	321
Petticoats	108	904
Pillow shams	4	
Quilts	124	227
" knitted	3	
Rugs, "	3	
Sideboard covers	8	5
Slippers, pairs (wool)	20	
Stockings, "	214	3,463
" footed	18	
Socks, pairs	230	196
Shawls, wool	10	
Sheets	496	384
Shirts	416	208
Skirts of dresses	42	79
Tray covers (drawn work)	4	
Towels, diaper	296	
" dish	102	65
" roller	98	71
Table cloths	96	76
" covers	8	11
Toilet covers	26	
Tea coseys, knitted	2	
Ticks, mattress	4	6
" bed	6	15
Waists	15	28
" dress	10	16
Lace yards	56	
	5,675	13,464

TABLE No. 17.

Showing work done in Sewing Room.

Articles.	Cut.	Made.	Repaired.	Articles.	Cut.	Made.	Repaired.
Aprons	349	27	109	Mattress ticks	13	3	
Blinds	36	22	20	Night-gowns	179		
Blouse waists	15	13		Pillow-ticks	2	2	
Bibs	2		2	Pillow-shams	11		2
Counterpanes		2	4	Pillow-covers		14	4
Clothes bags	63	1	2	Pudding cloths	34		
Collars		4	5	Quilts	134		28
Coseys	3	3		Sheets	905	2	8
Caps	324			Shirts	403	2	115
Carpets		1		Skirts	117		
Chemises	385	2		Screens		2	
Curtains	152	21	27	Screen-covers	15	10	
Cushions	7	5		Sideboard covers	4		
Cushion covers	60	6	4	Shrouds		1	
Crumb cloth		1		Stockings (pairs)			20
Corset covers		2		Socks "			360
Capes	37	1		Tablecloths	135	7	16
Dress skirts		5		Table napkins		12	44
Dresses	338	132	4	Ties	76		
Dusters	12			Toilet covers	51		6
Drawers	190	2	31	Table covers	5	4	
Doyleys	16	3		Towels (roller)	196		
Jackets		2		Towels (dish)	342		
Guernseys			9	Tray cloths		1	6
Handkerchiefs		4		Untidy suits	2	2	
Lambrequins	7	7		Vests			8
Mantel Drapes	8	4		Waists			4

TABLE No. 18.

Laundry list for year ending September 30th, 1902.

Aprons	22,199	Pillow-cases	45,160
Blankets	7,712	Pillow-shams	865
Bed-ticks	132	Pants	1,701
Blinds	966	Quilts	9,133
Bibs (linen)	218	Spreads	2,107
Bags (laundry)	6,059	Sheets	44,951
Blouses	2,381	Shirts (cotton)	17,889
Chemises (cotton)	9,288	Shirts (flannel)	10,014
do (flannel)	1,597	Socks	14,189
Cushion covers	271	Stockings	10,011
Collars	10,203	Skirts (flannel)	4,963
Cuffs	2,340	do (cotton)	1,989
Caps	43	do (colored)	5,279
Coats	881	Shawls	39
Curtains	1,820	Tablecloths	10,325
Combination suits	170	Table napkins	10,691
Dresses	8,247	Tray cloths	1,145
Dress skirts	880	Toilet covers	2,993
Drawers (cotton)	9,805	Tie	259
do (flannel)	9,496	Towels (dish)	6,548
Dusters	1,147	do (diaper)	16,506
Fancy pieces	2 622	do (roller)	9,447
Guernseys	7,586	Vests	650
Handkerchiefs	16,887	Waists	2,420
Lambrequins	11		
Nightgowns	9,980	Total	364,546
Nightshirts	1,128		

TABLE No. 19.

Work done in the Tailor Shop.

Articles.	Made.	Repaired.	Articles.	Made.	Repaired.
Tweed coats	157	98	White duck pants	5	
" vests	62	87	Firemen's coats	4	
" pants	187	200	" pants	15	6
" overcoats	2	12	Attendants' uniform coats	27	25
Moleskin combination suits	4	6	" " pants	28	68
Blue denim coats	3		" " re-made	12	
" pants	5	19	Buffalo robes		7
White duck coats	4				

TABLE No. 20.

Work done in the Shoe Shop.

Articles.	Pairs.	Rate.	Value.
		$	$ c.
Men's long boots	40	3	120 00
" shoes	189	2	378 00
Women's shoes	46	2	92 00
" slippers	117	1	117 00
			707 00
771 pairs repaired at 50c			385 50
			1,092 50

Harness.

19 pieces repaired	$ 2 95

Tinware.

54 new pieces	39 00
685 pieces repaired	78 35

Upholstering.

120 mattresses re-made	240 00
19 pillows "	4 75
19 sofas re-uphostered	76 00
7 chairs "	14 00
2 carpets made and laid	4 00
	$459 05

TABLE No. 21.

Garden Produce for the year.

—	—		$ c.	$ c.
Asparagus	375 bunches	at	2	7 50
Artichokes	16 bushels	"	40	6 40
Beans	57 "	"	40	22 80
Beets	475 "	"	40	190 00
Carrots	425 "	"	40	180 00
Cucumbers	2,670 each	"	1	26 70
Celery	7,425 heads	"	3	222 75
Cabbage	13,790 "	"	2	275 80
Currants	114 quarts	"	5	5 70
Cauliflower	2,125 heads	"	5	106 25
Cress	1,295 bunches	"	1	12 95
Citrons	465	"	5	23 25
Corn	1,535 dozens	"	5	76 75
Gooseberries	35 quarts	"	5	1 75
Lettuce	16,275 heads	"	1	162 75
Onions, green	10,615 bunches	"	1	106 15
" ripe	170 bushels	"	1 00	170 00
Peas in pod	40 "	"	40	16 00
Potatoes, early	44 "	"	1 00	46 00
Parsley	2,150 bunches	"	1	21 50
Parsnip	645 bushels	"	40	258 00
Rhubarb	8,235 bunches	"	2	164 70
Radish, summer	5,275 "	"	1	52 75
" winter	50 bushels	"	50	25 00
Spinach	245 "	"	20	49 00
Strawberries	335 quarts	"	6	20 10
Savoy and sage	1,395 bunches	"	2	27 90
Tomatoes	385 bushels	"	50	192 50
Turnips	75 "	"	20	15 00
Vegetable marrows	1,735	"	2	34 70
Mangel-wurzels	55 tons	"	5 00	275 00
Western corn	110 loads	"	1 00	110 00
Milk	27,473 gallons	"	12	3,296 76
				6,202 41

TABLE No. 22—Farm Exchange Account.

		$ c.			$ c.
1901.			1901.		
Oct. 9	To cash paid Can. Laundry Mchy. Co., 1 centrifugal extractor	140 00	Oct. 1	By balance	529 91
Nov. 1	" R. Hunter, 1 milch cow $ 54 00		9	By cash from Can. Laundry Mchy. Co., 1 starching machine	30 00
1	" " 2 springers 110 00		9	" " " 1 ironing machine	70 00
1	" " 4 milch cows 202 00		Nov. 1	" R. Hunter, 7 dry cows	294 00
1	" " expenses 3 50		21	" Jacob Sheppard 150 sugar barrels at 8c	12 00
	$390 50			" " 3 syrup barrels at 20c	60
	Less for calves 3 00			" " 6 boxes at 20c	1 20
		357 50		" " 50 rice sacks at 5c	2 50
Nov. 24	To cash paid A. Montgomery, repairs to wagon and cart	15 50		" " 160 lbs. tea lead at 1½c	2 40
4	" W. B. Irving, repairs to buggy	72 00	Dec. 12	" R. Hunter, 1 dry cow	42 00
4	" " "	62 00			984 61
Dec. 12	" R. Hunter, 1 milch cow	49 00			
31	To balance	288 61	1902.		
		984 61	Jan. 1	By balance	288 61
1902.			2	By cash from J. Taylor & Co., 3,663 lbs. grease at 2¾c	100 73
Jan. 11	To cash paid R. Hunter, 7 milch cows $311 00		2	" " " 5,740 " 3c	172 20
11	" " expenses 3 75		2	" " " 90 " 3½c	3 15
	$314 75		6	" R. Hunter, 7 dry cows	257 00
	Less for calves 1 50				821 69
		313 25	April 1	By balance	508 44
Mch. 31	To balance	508 44	3	By cash from R. Hunter, 7 dry cows	300 00
		821 69	May 17	" " " 7 "	324 00
					1,132 44
April 11	To cash paid R. Hunter, 1 milch cow	55 50			
11	" " 7 "	341 25	July 1	By balance	3 3 19
June 2	" " 7 "	342 50	7	By cash from R. Hunter, 6 dry cows	274 00
30	To balance	393 19	11	" W. G. Harris, 8,410 lbs. scrap iron at ½c	42 05
		1,132 44	11	" " 5,400 lbs. rags at 1c	54 00
			Sep. 30	" R. Hunter, 7 dry cows at $40	280 00
					1,043 24
July 7	To cash paid R. Hunter, 6 milch cows	280 50			
Sep. 30	To balance	762 74			
		1,043 24	Oct. 1	By balance	762 74

ANNUAL REPORT OF THE MEDICAL SUPERINTENDENT OF THE ASYLUM FOR THE INSANE, LONDON, ONTARIO.

To R. Christie, Esq.,
Inspector of Asylums, Ontario :

Sir,—I have the honor to transmit to you herewith the thirty-first annual report of this Asylum.

There were in residence at this Asylum, on October 1, 1902, 1,034 patients, of whom 490 were males and 544 females. In the course of the twelve months that have since elapsed, there have been admitted into the Asylum 153 patients, of whom 69 were males, and 84 females, making the total number of patients under treatment during the year 1,187—559 men and 628 women. Of these patients 72 have been discharged—4 males and 32 females; 62 have died—28 males and 34 females; 7 have eloped—5 males and 2 females; 33 females have been transferred to another asylum, leaving in residence at present 1,013 patients, of whom 486 are males and 527 females. Of the 54 discharged as recovered, 29 were males and 25 females: 13 were discharged improved—7 males and 5 females; 5 were discharged unimproved—4 males and 1 female; all of the five were discharged at the request of their friends.

The number of patients discharged recovered and improved was, therefore, 67, or 43.14 per cent. of the admissions. The recovery rate from the opening of the Asylum down to date, including patients discharged improved, has been 39.42.

The total number of patients under treatment during the year was 1,187, and the number of deaths 62, so that the death rate for the year was 5.23 per cent. We had no deaths during the year from other than natural causes.

The average death race from the opening of the Asylum down to the present time has been 3.4 per cent.

The total number of patients admitted into this Asylum since it was opened, 20th November, 1870, is 4,852, of whom 2,575 were males, and 2,277 females. Of these, there have been discharged 1,913—982 males and 931 females. There have died 1,418, of whom 809 were males and 609 females. There have been written off, eloped, 102—91 males and 11 females. There have been transferred to other asylums 406, of whom 207 were males and 199 females. Remaining in residence, 30th September, 1902, 1,013, of whom 486 are men and 527 women.

The Infirmary.

We are very glad to say that this building is rapidly nearing completion, and we expect to be able to take possession some time during the winter. This will give us plenty of room for our sick, and perhaps a few others, and thus relieve to some extent the crowded state of the Asylum, from which we at present suffer. It will not, however, provide for the proper care of a certain class of our sick, which ought to be provided for,—I refer to those suffering from tuberculosis, who should, according to modern and intelligent ideas, be isolated from the general crowd; and consequently we should have a building in some sunny part of the grounds, built in the most approved modern plan, for the treatment of these cases. Each Asylum ought to have a cottage capable of providing accommodation for at least twenty males, and a like number of females, with balconies and other provisions for being most of their time in the fresh air. As a makeshift until permanent buildings can be afforded, ordinary tents for the summer, and

double-walled tents for the winter, would be a step in the right direction, and would enable the management to isolate patients who are a constant menace to the other inmates; for it is a well-known fact that all insane patients, confined as they necessarily are in asylums, have their powers of resisting disease very much lowered; hence, are easy victims to infection from this scourge of humanity—tuberculosis. This is a question which the Government will have to provide for in the near future.

The Training School for Nurses.

In connection with our new Infirmary, and, in fact, for the welfare of the whole institution, we have come to the conclusion that the efficiency of our attendants would be greatly increased if they were properly trained, as modern nurses are. The training of nurses for the sick is rather a modern idea, for we find on enquiry that the first training school for nurses in the United States was started twenty-nine years ago, and the first training school in a hospital for the insane on this continent was started at Waverly, Mass., in 1882. We decide that two years' experience must be had in the institution before the diploma will be granted, although an attendant may be credited with service of a suitable character, acquired in some other institution than the one where he or she graduates. But it should be stipulated that such graduate shall have at least one year's experience in the institution where he or she graduates, and such graduate must be in the employ of the institution at the time of graduation.

The main reason for the establishment of a training school in connection with the London Asylum is to secure the best and most intelligent care and treatment for our inmates. We feel, too, that it will produce a better fellowship among the attendants, as well as give them something to look forward to when they shall have acquired their profession. It is also hoped that it will cause them to take a greater interest in the duties which they have to perform. We propose that after a time all who are engaged here as attendants or nurses shall be graduates, or undergraduates, of this or some other accredited training school. Graduates will, of course, have the preference. Of course, this can not be enforced until at least two or more years have elapsed, or until we have graduating classes.

We will start with a class of about fifty-five pupils, in the proportions of about one-third men and two-thirds women. This will give us the advantage of having trained male nurses for the sick male insane, which we think is generally very necessary. I am confident that we shall have better results as a consequence of this innovation, in the management of this Asylum. We shall, of course, try to keep our trained nurses for all time, after their graduation, but fear that the demand for such experienced nurses will be so great as to enable them to command wages which our Government will not be able or willing to pay. The course of lectures we propose to give to the class will be the same, or nearly so, as is adopted at such schools; and, in addition, they will be taught the management of the mentally deranged. The Government has been good enough to furnish the text-book on nursing which is adopted by the Medico Psychological Association of Great Britain, and which it is proposed to loan to the pupils during their course; so that they not only will be furnished the use, without expense, of the book necessary for their studies, but they will also be allowed their full wages while getting their profession.

Work Done.

The past year has been a very busy one, and much work has been accomplished which was absolutely necessary to be done; and, as it has

been done by the assistance of the patients, it has been done at a minimum of expense. The fence along the west side of the garden was in a very dilapidated condition, which accounted for the depredations in the garden, and the loss of a good deal of fruit and flowers. This was replaced by a high woven wire fence, supported by good cedar posts, making a very handsome and serviceable fence, which does not obstruct the view of the fine garden, and yet keeps out wanderers, and other evil disposed persons, most effectually. We have long needed a suitable fruit cellar, in which to store apples and other fruit, beside our large stock of celery. We have built, and will have furnished within a few days, a very fine cellar, near the gardener's house, which is about seventy feet long by eighteen feet wide, and sven feet deep. The material for the walls, with the exception of a few new brick used above the ground on the outside of the wall, were gotten from the old disused sewer at the foot of the garden, thus making use of good material which was going to waste. The work was wholly done by our own labor.

The gardener's house was also veneered throughout with brick, making a very handsome and comfortable residence. This was a much-needed improvement, for the comfort of a very worthy officer and his family. The new shed over the apple cellar was newly-shingled also.

We have also this year been engaged in renewing the green houses, which had fallen into such a dilapidated condition that much valuable stock was each winter being lost, and the gardener was so cramped for room that he could not grow much desirable material for ornamental decoration and bedding, which was very much needed. With the appropriation, four large new greenhouses will be constructed, ready for use this autumn, which could not have been built with five times the appropriation had we not done the work entirely by our own labor.

The Laundry.

Our laundry, which for some time has not had the capacity to meet the wants of the institution, and which, consequently, it had become absolutely necessary to enlarge and improve, is now in a fair way of being doubled in size, and modernized, so that our wants in that line should be fully satisfied. An additional building is being built of white brick, which is fifty feet long by thirty feet wide, and two stories in height. This will give us ample room, and will enable the employees to work with comfort, instead of being crowded together, and being overcome by the heat, as has been the case in the old building. The Government proposes also to introduce the Hanrahan system of drying, by a process of condensation, with a cold draught, instead of heat, as at present. This is said to be a great improvement on the old style of drying-room, and with these improvements, the introduction of two new washing machines, modern ironing machines, a steam hoist, etc., we hope to carry on this very necessary work, so that the clothes will be sweet and clean, and not as they have been since the institution has outgrown the capacity of the old laundry. The walls of the building are half up, and we trust that before winter sets in we may have full use of the new building and machinery.

The Water Supply.

One of the greatest sources of anxiety has been the water supply. The well was found to be incapable of supplying our wants, as it has done in former years; in fact, it has fallen a good deal short. To meet the difficulty, which is likely to be greater as each year goes by, two ponds were

formed in a gully north of the butcher shop, by putting dams across. These soon became filled with water, but it was not fit for drinking purposes, although it was all right for other purposes, and it has been so used, thus eking out the supply of the well. This water is brought through pipes to the laundry, where, by natural gravitation, it rises two feet above the level of the floor. It is also pumped into some of the tanks on the main building, to be used for all purposes other than as drinking water.

To make a permanent reservoir, in which we could have an abundant supply of pure water and ice for our ever growing population, has this season been one of our greatest anxieties, and we have kept at it persistently, and at last have the satisfaction of knowing that eventually we shall have an abundant supply of good spring water, which also, in the winter, will furnish us with pure ice, which can be used in sickness, etc., for other than merely cooling purposes.

In order to accomplish this, we first ran a four-inch iron pipe from the upper pond, which is merely a pond receiving surface water, down through the reservoir, so that the pond shall not contaminate the water in the reservoir. We then found that there were a series of good springs in the north bank of the reservoir. These we connected by digging a ditch along the face of the bank, and putting in land tile, and allowing the water to make its way into the reservoir, which it soon filled with beautiful water, and, although about 50,000 galons are drawn daily from it, there does not seem to be the least diminution in the supply. We are also putting down on the south side of the reservoir a ten inch overflow pipe, leading from the top of the pond to below the reservoir, to prevent any possible contamination in case of a freshet. We shall also put down a line of land tile on the south side, to lead away any surplus drainage from the reservoir. All this is done by our labor, under the direction of our able engineer; and in order that we may be assured that we may never run short of good water, we propose to enlarge the reservoir, and to cement its bottom, boulevard and gravel its margins, surround it with a suitable fence, and plant evergreen trees about it, thus making it a desirable looking source of water, which, from an aesthetic point of view, goes a long way towards satisfying dainty people. We feel convinced that it is our duty to provide to our people pure water and pure milk, considering them, if impure, perhaps two of the most fruitful sources of conveying disease.

Much other work has been done during the season, of which we shall merely give a list, viz.: A new fence across the sewer field; changing the long, filthy, dangerous water troughs in the cow stable for the latest approved means of watering cows, namely, by Woodward's Basins; improving the cleanliness of the milking by causing the milkers to wash before milking each cow, and to don white aprons and sleeves. Repaired the silo and the foundation of the cow stable. Renovated the Superintendent's residence. Painted the fire escape, in front of the main building. Painted the front of the sewage gardener's residence. Renovated the Bursar's house. Put in twelve new enamelled baths, and spray attachments, to nearly all the baths. New metal ceilings to two of the halls in the main building on the women's side, and also one for a storeroom.

There were 50,000,000 gallons of water pumped during the year, and 32,000,000 gallons of sewage. We put on a new roof on the kitchen at the north building.

We fitted the dairy with heat and light; put in gas in the men's dormitory; besides a great number of smaller repairs and renewals.

In this department a large turning lathe was bought, and is found to be exceedingly serviceable and useful.

Work to be Done.

To finish the Infirmary, for which all the contracts are let, and which work is being rapidly completed. To finish and furnish the Laundry. This work, too, is going forward as rapidly as possible. To finish the greenhouses and heat them. To put in new cement floors in the kitchen and centre part of the cellar, under the store.

To put up the balconies at the end of the B. and D. halls, in the main building. These are very much needed, and for nearly all of the above work appropriations have been made. Some other work, which should be done at as early a date as the Government sees fit, to modernize the Institution and to save money, would be to instal an electric lighting plant. We have ample power in connection with our pumping engines, which are only used during the day. They might as well be utilized in generating electricity by night. Then our beautiful grounds might be cheaply lighted, instead of being, as now, so dark that it is dangerous to go from one part to another after dark.

We need a new large woodshed, built near the barn, instead of the small one, awkwardly situated, and an eyesore in the sewage garden.

The main entrance to the main building is not at all in keeping with the appearance of the building, being merely an iron fire escape; its shabby appearance being commented upon by almost everyone who visits the institution. It is not at all in keeping with the beautiful grounds, so well kept in front, and should be moved to the rear of the building, where it would be equally useful in case of an emergency. A very suitable entrance would be in the form of a Porte Cochere, with a balcony on top, where the families of the resident doctors or the patients could have plenty of room to get a sun bath and fresh air. This need not be an expensive work, since it could be done chiefly by our own labor. We sincerely trust that the Government may see its way to allowing this much-needed improvement to be done, at a very early date.

Another very necessary work in the near future should be the building of a "Nurses' Home." It is barbarous that the nurses who come on duty in the wards at 5.30 a.m., and work until 9 p.m., have to go to their rooms just off the hall, in order to get their rest, amid all the noise and bad air. Good service cannot be expected under such circumstances. If the Government will allow us the material, we can build it with our own labor. Such a building would much enlarge the capacity of the main building, by allowing the rooms now occupied by the nurses to be available for patients.

Amusements.

As is the custom now in modern asylums, every opportunity is taken advantage of to furnish entertainment for the patients, and thus to lighten as much as possible the irksome monotony of their unfortunate existence. During the winter months, dances were given twice a week; an "at home" once each week; the other nights of the week being filld in with concerts, lectures, etc. On these occasions the music was furnished by our own orchestra. The very superior band of the Seventh Regiment were good enough to give us during the season no less than three good concerts, which were much appreciated by all present. Our annual sports took place on September 30th, and, although the day was wet, passed off very well. We wish here to thank the many merchants and others of the city who were good enough to donate the prizes for the games, many of which were very valuable. The staff feels very grateful to those kind and generous friends of the institution for thus lending a helping hand to them in their endeavors

to throw a ray of sunshine into the lives of the poor people under their care. Our Church has continued to be a source of pleasure and comfort to very many, and we must not pass without thanking with all our hearts the kind clergymen who, in a very self-sacrificing way, have been good enough to come from the city to the 9 a.m. service each Sunday morning to minister to the spiritual needs of those who attend. Our choir, under the able management of Dr. Sippi, the Bursar, continues to be very efficient.

The Sewage.

We are glad to be able to say that our system of disposing of our sewage is yet perfectly satisfactory. The ground used does not seem to be unpleasantly saturated, nor do we think it is likely to be so, since, from the character of the soil and location, filtration takes place so rapidly and perfectly that there is but little danger of saturation.

The Farm and Garden.

The season has been a wet one, and such an one as suits our land perfectly. We have had unusually good crops of almost everything grown, and we feel proud to say that we think there are few farms and gardens in Canada where as fine a yield has been produced.

We are sorry to have to report that our flock of turkeys have been this season afflicted with some sort of infectious disease of the liver. We have lost 44 birds already. As the disease is very unusual, and not understood, we have submitted some of the specimens to Dr. W. G. MacCallum, Patholo gist to Johns Hopkins Hospital, Baltimore, for an opinion.

The Women's Airing Court.

Each day during suitable weather it has been the custom to allow all the females in the main building to have a certain time in the sun and fresh air, but, owing to the fact that the handsome wall which surrounded the court was taken away, it is almost impossible for our staff of twenty female attendants to guard the three hundred women, without herding them together, so that their outing is anything but a pleasure to the poor creatures. This mode of guarding and watching them is absolutely necessary on account of the trees and shrubbery on the grounds affording such facilities for patients to escape, and, if suicidally inclined, to readily reach the track of the C. P. R., which was unwisely allowed to cross the grounds, in close proximity to the building. I would suggest that an appropriation be at once made to build a woven wire fence, with iron posts on the outside, around the women's airing court, so that the inmates may have their freedom in walk ing about therein. This sort of a fence would be very cheap, not unsightly so as to spoil the appearance of the grounds, and yet be efficient.

Officers and Employees.

There have been many changes in the staff since the last report. The most important of which was the sad loss by sudden death of the late Superintendent, Dr. Bucke, on February 19th, which came as a stunning blow not only to the staff but to the interests of the whole institution, at the head of which he had been for a quarter of a century. The universal opinion undoubtedly is that the Province has lost an able executive officer from the head of one of its large public institutions, and the country a very

able son, who will be long remembered for his literary and social characteristics. On March 1st your humble servant was appointed to the position rendered vacant. Dr. F. Beemer was on June 15th promoted to the position of Deputy Superintendent at the Hamilton Asylum. Dr. R. W. Bell of Toronto Asylum, succeeding him here, June 16th. Dr. W. T. Wilson was sent from here to Hamilton, and Dr. P. MacNaughton transferred from Mimico to this institution, August 2nd. As will be seen, these moves practically changed the whole staff of this Asylum, with the exception of our able Deputy Supèrintendent, Dr. Buchan, who continues to do good work as he has for many years. I desire to say here that no one could have received more cordial and loyal support than has been accorded to me by all of the employees of the institution, without exception. I have felt more grateful for this, because, in trying to grasp the working details of the institution, I needed much kindness.

The following lists annexed will show fully the result of the farming and gardening operations for the year.

I have the honor to be, Sir,
Your Obedient Servant,

G. A. MacCALLUM.

R. Christie, Esq., Inspector of Asylums, Toronto, Ont.

ANNUAL STATISTICAL REPORT

Of the operations of the Asylum for Insane, London, for the year ending 30th September, 1902.

TABLE NO. 1.

Shewing movements of patients in the Asylum for the official year ending September 30, 1902.

	Male.	Female.	Total.	Male.	Female.	Total.
Remaining, October 1st, 1901				490	544	1,034
Admitted during year :—						
By Lieutenant-Governor's Warrant	35	22	57			
By Medical Certificate	34	62	96			
				69	84	153
Total number under treatment during year				559	628	1,187
Discharges during year :—						
As recovered	29	25	54			
As improved	7	6	13			
As unimproved	4	1	5			
Total number of discharges during year	40	32	72			
Died	28	34	62			
Eloped	5	2	7			
Transferred		33	33			
				73	101	174
Remaining in Asylum, 30th September, 1902				486	527	1,013
Total No. admitted since opening of Asylum				2,575	2,277	4,852
" discharged	982	931	1,913			
" died	809	609	1,418			
" eloped	91	11	102			
" transferred	207	199	406			
				2,089	1,750	3,839
" remaining, 30th September, 1902				486	527	1,013
Number of applications on file				10	10	20

TABLE NO. 2.

Shewing the maximum and minimum number of patients resident in the Asylum, the total number of days' stay of patients, and the daily average number of patients in the Asylum, from the 1st October, 1901, to 30th September, 1902.

	Male.	Female.	Total.
Maximum number of patients in residence (on the 2nd of January)....	485	553	1,038
Minimum " " " (on the 16th of January)....	484	513	997
Collective days' stay of all patients in residence during year	178,029	194,182	372,211
Daily average population.....	487.7	532.0	1,019.7

	Admissions of Year.			Total admissions since opening.		
	Male.	Female.	Total.	Male.	Female.	Total.
Social State.						
Married... .... Widowed	33	53	86	1,128	1,413	2,541
Single	36	31	67	1,447	864	2,311
Not reported	.....	.....	.....	.....	.....	.....
Total	69	84	153	2,575	2,277	4,852
Religion.						
Presbyterians	21	20	41	575	508	1,083
Episcopalians	12	17	29	476	410	886
Methodists	20	25	45	597	583	1,180
Baptists.....	4	8	12	187	178	365
Congregationalists.....	.....	1	1	23	15	38
Roman Catholics	7	11	18	409	394	803
Mennonites	.....	.....	.....	6	2	8
Quakers	.....	.....	.....	12	3	15
Infidels	.....	.....	.....	31	8	39
Other denominations	5	2	7	121	107	228
Not reported	.....	.....	.....	138	69	207
Total	69	84	153	2,575	2,277	4,852
Nationalities.						
English	7	10	17	340	263	603
Irish	5	5	10	313	370	683
Scotch	5	7	12	222	189	411
Canadian.....	50	59	109	1,479	1,279	2,758
United States	2	2	4	96	70	166
Other countries.....	.....	1	1	58	65	123
Unknown	.....	.....	.....	67	41	108
Total	69	84	153	2,575	2,277	4,852

TABLE No. 3.

Shewing the Counties from which patients have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total admittance.		
	Male.	Female.	Total.	Male.	Female.	Total.
Algoma District				8	5	13
Brant				38	34	72
Bruce	5	15	20	189	143	332
Carleton				4	7	11
Dufferin						
Elgin	6	8	14	160	158	318
Essex	4	4	8	143	136	279
Frontenac				5	7	12
Grey				10	13	23
Haldimand				22	23	45
Halton				10	7	17
Hastings				5	9	14
Huron	8	8	16	236	227	463
Kent	3	6	9	173	182	355
Lambton	6	5	11	275	195	470
Lanark				3	3	6
Leeds and Grenville					5	5
Lennox and Addington				3	1	4
Lincoln				10	6	16
Middlesex	24	24	48	610	569	1,179
Muskoka District						
Norfolk				30	35	65
Northumberland and Durham				14	10	24
Ontario				6	13	19
Oxford	5	3	8	235	147	382
Peel				4	6	10
Perth	7	9	16	198	164	362
Peterborough				1	5	6
Prescott and Russell				2	3	5
Prince Edward				1	1	2
Renfrew				13	21	34
Simcoe				5	5	10
Stormont, Dundas and Glengarry				12	14	26
Victoria				33	21	54
Waterloo				8	7	15
Welland				20	16	36
Wellington		2	2	13	21	34
Wentworth				46	47	93
York	1		1	27	11	38
Not classed				2		2
Total admissions	69	84	153	2,575	2,277	4,852

TABLE No. 4.

Shewing the Counties from which warranted cases have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total admittance.		
	Male.	Female.	Total.	Male.	Female.	Total.
Algoma District				8	2	10
Brant				20	11	31
Bruce	4	5	9	95	52	147
Carleton					2	2
Dufferin						
Elgin	3	1	4	49	14	63
Essex	2	1	3	65	43	108
Frontenac					1	1
Grey				9	8	17
Haldimand				10	3	13
Halton				7	3	10
Hastings				2	5	7
Huron	3	2	5	98	59	157
Kent		2	2	59	29	88
Lambton	4	1	5	141	48	189
Lanark					1	1
Leeds and Grenville						
Lennox and Addington				1		1
Lincoln				8	1	9
Middlesex	13	5	18	172	117	289
Muskoka District						
Norfolk				21	12	33
Northumberland and Durham				4	2	6
Ontario				1	5	6
Oxford	3		3	116	34	150
Peel				3	5	8
Perth	2	5	7	82	47	129
Peterborough				1	5	6
Prescott and Russell				1	1	2
Prince Edward					1	1
Renfrew						
Simcoe				5	8	13
Stormont, Dundas and Glengarry				1		1
Victoria				9	9	18
Waterloo				17	8	25
Welland				3	5	8
Wellington				13	11	24
Wentworth				6	9	15
York	1		1	29	25	54
Not classed				1		1
Total admissions	35	22	57	1,057	586	1,643

TABLE No. 5.

Shewing the length of residence in the Asylum of those discharged during the year.

No.	Initials.	Sex.	When admitted.	When discharged.	Remarks.
1	F.A	M	May 13, 1898	October 5, 1901	Improved.
2	G.R	M.	Aug. 23, 1901	" 30, "	Unimproved.
3	W. L.	M.	" 16, 1893	November 1, "	Recovered.
4	A. G.	M.	June 23, 1896	" 1, "	"
5	M. W	F.	Feb. 1, 1901	" 4 "	"
6	W. H	M.	Jan. 2, 1901	" 13, "	"
7	J. U	M.	July 20, 1901	" 13. "	"
8	G. A. T	M.	Sept. 3, 1901	" 22, "	Unimproved.
9	W. R	M.	Sept. 27, 1901	" 27, "	Recovered.
10	J. McK	M.	July 13, 1901	December 4, "	"
11	D. McL.	M.	July 18, 1894	" 6, "	"
12	R.M	M.	Feb, 26, 1890	" 16, "	"
13	M.W.	M.	Sept 11, 1899	" 20, "	Unimproved.
14	A.W	F.	Aug. 9, 1894	January 2, 1902	Recovered.
15	J. McK	F.	Feb. 2, 1899	" 4, "	"
16	M. G.	F.	Aug. 11, 1900	" 7, "	"
17	J. K	F.	Dec. 12 1898	" 16, "	Unimproved.
18	A. B.	F.	Nov. 22, 1900	" 16, "	Improved.
19	W. H	M.	May 30, 1901	" 16, "	Recovered.
20	N. S. G.	M.	Jan. 31, 1901	" 16. "	"
21	M. P	M.	Jan. 23, 1900	" 25, "	"
22	M. E. B	F.	Dec. 31, 1901	February 6, "	Improved
23	C. B. F.	M.	Dec. 24, 1901	" 7, "	Recovered.
24	E. M. C.	F.	July 7, 1900	" 10, "	Improved.
25	J. D	M.	Dec. 24, 1901	" 11, "	Recovered.
26	J. A. P.	F.	May 11, 1901	" 15, "	Improved.
27	J. B	M.	June 21, 1900	" 18, "	Recovered.
28	C. M.	M.	Dec. 28, 1900	" 18, "	Improved.
29	A. McG	M.	May 1, 1901	" 18, "	"
30	M. R	M.	Dec. 1, 1891	March 8, "	"
31	M E.C	F.	June 15, 1898	" 12, "	Recovered.
32	M.A	F.	July 31, 1901	" 13, "	"
33	H. W	M.	Jan. 21, 1902	" 22, "	"
34	H. McL	M.	Dec. 7, 1901	" 25, "	"
35	G. H. O.	M.	Jan. 17, 1901	" 31, "	Improved.
36	T. McL	M.	April 4, 1901	" 31, "	"
37	J D	M.	Aug. 3, 1901	" 31, "	"
38	C. H	M.	May 3, 1895	April 7, "	Recovered.
39	J. P	M.	Sept. 4, 1901	" 8, "	"
40	M. C.	F.	Oct. 9, 1900	May 2, "	"
41	M. H.	F.	Aug. 8, 1900	" 8, "	"
42	A. R	M.	Aug. 8, 1900	" 9, "	"
43	G. M.	M.	Apr. 19, 1901	June 6, "	"
44	I. R	M.	July 28, 1897	" 6, "	"
45	M. E.	M.	July 19, 1900	" 6, "	"
46	F. R.	M.	Sept. 4, 1900	" 6, "	"
47	M. G.	M.	Oct. 10, 1901	" 6, "	"
48	L. R.	F.	Mar. 22, 1901	" 19, "	"
49	G. J	M	Nov. 3, 1901	" 27, "	Unimproved.
50	S. E. F	F.	Jan. 23, 1902	" 27, "	Improved.
51	C. C	M.	Oct. 3, 1901	July 4, "	Recovered.
52	A. D.	M.	June 17, 1901	" 15, "	"
53	M. B.	F.	July 1, 1901	" 28, "	"
54	S. E. L.	F.	Aug. 1, 1901	" 28, "	"
55	H. R. A.	F.	Nov. 19, 1901	" 28, "	"
56	M. A. McD	F.	July 13, 1901	August 8, "	"
57	A. M.	F.	Apr. 24, 1901	" 8, "	"
58	J. P	M.	June 16, 1902	" 19, "	"
59	M. J. A	F.	Dec. 6, 1901	" 22, "	"
60	A. L. McC	F.	Dec. 14, 1900	" 23, "	"
61	L. P	F.	Feb. 1, 1902	September 1, "	"
62	M. O. R	F.	Mar. 25, 1902	" 13, "	"
63	M. S.	F.	Jan. 22, 1902	" 13, "	"
64	M. B.	F.	July 21, 1902	" 13, "	Improved.
65	F. P	M.	Mar. 21, 1902	" 18, "	Recovered.
66	E. R.	F.	Dec. 19, 1901	" 18, "	"
67	L. W	F.	Jan. 22, 1902	" 19, "	"
68	R. N.	M.	July 19, 1901	" 26, "	"
69	A. H	F.	Nov. 22, 1901	" 30, "	"
70	M. Y	F.	Aug. 20, 1898	February 24, "	"
71	E. M. K	F.	July 25, 1901	March 22, "	"
72	R. E.	F.	Feb. 27, 1901	" 22, "	"

TABLE No. 6.

Shewing age, length of residence, and approximate cause of death of those who died during the year ending 30th September, 1902.

No.	Initials.	Sex.	Age.	Date of Death.	Residence in Asylum.			Proximate cause of death.
					Years.	Months.	Days.	
1	J. F. F	F.	31	October 1, 1901	1	5	25	Phthisis.
2	J. R	M.	49	" 8, "		4	25	Suicide.
3	J. R	M.	80	" 11, "	6	8	25	Paralysis.
4	J. A	M.	79	" 12, "			7	Senile decay.
5	M. S	F.	72	" 19, "	18	8	14	Senile decay.
6	R. J. N	M.	26	" 20, "	3	9	19	Phthisis.
7	A. W	M.	64	" 22, "	11	3	11	Dysentery.
8	E. B	F.	61	November 8, "	11	3	16	Senile decay.
9	B. J	M.	27	" 20, "		6	3	Paresis.
10	R. L	M.	60	" 25, "	25	7	8	Peritonitis.
11	J. H	M.	42	Decemb'r 11, "	10	8	11	Exh. of Epilepsy.
12	T. W.	M.	57	" 15, "		5	12	Exh. of Melancholia.
13	S. H	F.	43	" 22, "		10	20	Paresis.
14	J. E. W	M.	36	" 23, "	17	9	17	Cancer of Throat.
15	M. F	F.	81	" 29, "	31	1	6	Senile decay.
16	J. S	F.	64	January 2, 1902	6		22	Exh. of Epilepsy.
17	C. P	M.	43	" 2, "	5	10	28	Pyaemia.
18	E. C	F.	43	" 9, "	9	1	21	Phthisis.
19	M. B	F.	67	" 9, "		4	9	Apoplexy.
20	L. O	F.	43	" 12, "		2	14	Exh. of Melancholia.
21	M. O	F.	61	" 13, "	1	8	25	Paralysis.
22	D. R. V. A	M.	78	" 16, "			24	Exh. of Mania.
23	E. W.	F.	69	" 19, "	11	2	30	Pleurisy.
24	J. L	M.	26	" 22, "	7		5	Phthisis.
25	M. E. S	F.	77	" 31, "	27	4	12	Phthisis.
26	C. C	F.	58	February 4, "	10	8	29	Brights Disease.
27	T. M	M.	70	" 8, "	12	1	26	Senile decay.
28	E. E	F.	60	" 12, "	7	10	22	Marasmus.
29	A. O	F.	73	" 14, "		8	23	Exh. of Mania.
30	S. G	M.	61	" 28, "		5	24	Paralysis.
31	M. R	F.	77	March 5, "	31	3	28	Exh. of Chr. Mania.
32	T. J. L	M.	84	" 10, "	6	9	22	Gangrene of Leg.
33	A. H	F.	48	" 11, "			21	Strangulated Hernia.
34	A. R	F.	59	" 11, "	3	9	10	Exh. of Epilepsy.
35	I. H	F.	56	" 12, "			19	Exh. of Melancholia.
36	E. C	F.	77	" 16, "		1	24	Dysentery.
37	G. H	M.	63	" 18, "	4	6	7	Exh. of Epilepsy.
38	M. A. L	F.	67	" 19, "	31	3	24	Senile decay.
39	J. S	F.	57	" 21, "	3		6	Apoplexy.
40	B. A	F.	40	" 25, "	17	4		Phthisis.
41	J. S	M.	65	April 1, "	9	4	3	Senile decay.
42	D. McN	M.	44	" 2, "	13	5	7	Phthisis.
43	D. M	M.	66	" 8, "		1	19	Senile decay.
44	R. W. W	M.	56	" 8, "	1		21	Epilepsy.
45	G. E	M.	34	" 27, "	8	1	19	Phthisis.
46	J. C	M.	37	May 9, "	3	3	8	Phthisis.
47	A. G	F.	37	" 11, "	1	6	5	Obstruction of Bowels.
48	E. A	F.	37	" 15, "	2	1	15	Phthisis.
49	J. D	F.	76	" 19, "		3	5	Exh. of Mania.
50	S. B	F.	29	" 22, "	1	2	17	Phthisis.
51	H. C	F.	57	" 23, "	31		12	Chronic Diarrhœa.
52	M. McD	F.	48	June 18, "		8	10	" "
53	M. A. R	F.	43	" 22, "	9	8	24	Cancer of Liver.
54	E. McL	F.	44	" 28, "	3	1	22	Cirrhosis of Liver.
55	M. K.	F.	70	July 3, "		3	28	Fracture Shock.
56	P. B	F.	65	" 6, "	31	7	18	Cirrhosis of Liver.
57	J. T	M.	41	" 17, "	11	3	11	Exh. of Epilepsy.
58	C. G	F.	24	" 21, "		6		Abscesses of Scalp.
59	D. M. J	M.	38	August 23, "		7	21	Angina Pectoris.
60	P. McN	M.	55	Sept. 16, "	2		29	Broncho-Pneumonia.
61	C. C	M.	48	" 20, "	10	6	13	Cardiac Disease.
62	J. L	M.	39	" 24, "		11	21	Phthisis.

TABLE No. 7.

Shewing trades, callings and occupations of patients admitted into the Asylum.

Trades, callings and occupations.	During the year.			During former years.			Total.
	Males.	Females	Total.	Males.	Females	Total.	
Agents	1		1	14	1	15	16
Architects				1		1	1
Artists	1		1		1	1	2
Book-keepers	4		4	9		9	13
Bakers				11	1	12	12
Bricklayers				4		4	4
Butchers				8		8	8
Blacksmiths				32		32	32
Brass-finishers				2		2	2
Brewers				2		2	2
Builders				1		1	1
Barbers				6		6	6
Broom-makers	1		1	2		2	3
Barristers				2		2	2
Bookbinders				1		1	1
Brakesmen				1		1	1
Baggagemen				2		2	2
Commercial travellers	1		1	10		10	11
Cabinet-makers				16		16	16
Confectioners				2		2	2
Coopers				16		16	16
Carpenters	2		2	64		64	66
Clerks	1		1	49	1	50	51
Clergymen	1		1	4		4	5
Carriage-makers				3		3	3
Cooks	1	1	2	1	2	3	5
Captains of steamboats				1		1	1
Cigarmakers		1	1	4	1	5	6
Custom-house officers				2		2	2
Civil servants				3		3	3
Dyers				1		1	1
Domestic servants, all kinds		8	8	4	302	306	314
Dressmakers		2	2		24	24	26
Druggists				5		5	5
Engineers	1		1	16		16	17
Farmers	22	13	35	949	84	1,033	1,068
Fishermen				5		5	5
Founders				2		2	2
Ferrymen				2		2	2
Furriers					1	1	1
Gardeners				15		15	15
Grocers	1		1	1		1	2
Gentlemen				6		6	6
Grooms				1		1	1
Hucksters					1	1	1
Hatters				1		1	1
Hostlers				4		4	4
Harness-makers				7		7	7
Housekeepers		42	42		1,245	1,245	1,287
Hack-drivers				1		1	1
Inn-keepers				3		3	3
Jewellers				4		4	4
Labourers	19		19	630	1	631	650
Laundresses					5	5	5
Ladies					12	12	12
Lawyers					1	1	1
Lumbermen					4	4	4
Milliners					13	13	13
Masons				9		9	9
Machinists				17		17	17
Matchmakers				1		1	1
Millers				12		12	12
Moulders	1		1	14		14	15
Merchants				41		41	41
Mechanics				7		7	7
Music-teachers				1	5	6	6

TABLE No. 7.—*Concluded.*

Shewing trades, callings and occupations of patients admitted into the Asylum.

Trades, callings and occupations.	During the year.			During former years.			Total.
	Males.	Females	Total.	Males.	Females	Total.	
Marble-cutters				2		2	2
No occupation	1	10	11	37	100	137	148
Nurses					3	3	3
Not stated				14	47	61	61
Organ-builders				2		2	2
Other occupations	5		5	18	6	24	29
Plasterers				4		4	4
Pensioners				4		4	4
Photographers	1		1	4		4	5
Prostitutes					6	6	6
Painters				26		26	26
Printers				18		18	18
Peddlers				4	1	5	5
Physicians	1		1	7		7	8
Pump-makers				1		1	1
Railway foremen	2		2	3		3	5
Railway conductors	1		1	1		1	2
Spinsters		3	3		14	14	17
Sailors				14		14	14
Students	1		1	30	2	32	33
Spinners				1	2	3	3
Sisters of Charity					1	1	1
Soda-water manufacturers				1		1	1
Stone-cutters				5		5	5
Showmen				2		2	2
Saddlers				6		6	6
Shoemakers				34		34	34
Seamstresses		3	3		23	23	26
Soap-makers				1		1	1
Soldiers				4		4	4
Salesmen					1	1	1
Surveyors				2		2	2
Ship-builders				2		2	2
Teachers				22	18	40	40
Tinsmiths				11		11	11
Tavern-keepers				8	1	9	9
Tailors		1	1	29	14	43	44
Tanners				7		7	7
Teamsters				4		4	4
Toll-gate keepers				1	1	2	2
Telegraph operators				3	1	4	4
Watchmakers				8		8	8
Wood-workers				2		2	2
Weavers				4	1	5	5
Wheelwrights				1		1	1
Waggon-makers				11		11	11
Unknown or other employments				111	251	362	362
Total	69	84	153	2,501	2,198	4,699	4,852

TABLE No. 8.

Shewing causes of Insanity.

Causes of insanity. In respect of the admissions for the year ending 30th September, 1902.	Number of instances in which each cause was assigned.								
	As predisposing cause.			As exciting cause.			As predisposing or exciting cause where these could not be distinguished.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Moral.									
Domestic troubles, including loss of relatives or friends	1	.....	1	3	3	6	.....	2	2
Religious excitement	.....	.....	.....	.....	.....	.....	.....	3	3
Adverse circumstances, including business troubles	.....	1	1	3	.....	3	1	.....	1
Love affairs, including seduction	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mental anxiety, "worry"	.....	.....	.....	.....	3	3	2	3	5
Fright and nervous shocks	.....	.....	.....	.....	1	1	.....	1	1
Physical.									
Intemperance in drink	1	.....	1	2	.....	2	3	2	5
Intemperance, sexual	.....	.....	.....	.....	.....	.....	.....	.....	.....
Venereal disease	1	.....	1	.....	.....	.....	.....	.....	.....
Self-abuse, sexual	1	.....	1	3	.....	3	5	.....	5
Over-work	1	.....	1	3	3	6	.....	1	1
Sunstroke	1	.....	1	.....	.....	.....	1	.....	1
Accident or injury	1	.....	1	3	.....	3	.....	1	1
Pregnancy	.....	.....	.....	.....	.....	.....	.....	.....	.....
Puerperal	.....	.....	.....	.....	1	1	.....	1	1
Lactation	.....	.....	.....	.....	.....	.....	.....	.....	.....
Puberty and change of life	.....	2	2	.....	3	3	.....	5	5
Uterine disorders	.....	.....	.....	.....	4	4	.....	3	3
Brain disease, with general paralysis	1	.....	1	1	.....	1	1	.....	1
Brain disease with epilepsy	.....	.....	.....	2	2	4	5	4	9
Other forms of brain disease	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other bodily diseases or disorders, including old age	1	2	3	2	2	4	1	7	8
Fevers	.....	.....	.....	.....	.....	.....	.....	1	1
Hereditary.									
With other ascertained cause in combination	14	13	27	.....	.....	.....	.....	.....	.....
With other combined cause not ascertained	12	20	32	.....	.....	.....	.....	.....	.....
Congenital.									
With other ascertained cause in combination	.....	.....	.....	.....	.....	.....	.....	.....	.....
With other combined cause not ascertained.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Unknown	15	12	27	28	28	56	.....	.....	.....
Total	50	50	100	50	50	100	19	34	53

TABLE No. 9.

Shewing the Probational Discharges and the result thereof.

Reg. No.	Sex.	Initials.	Date of probational discharge.	Term of probation.	Result.
4634	M	G M	October 23rd, 1901	6 months	Returned here.
4576	F	A.B	" 31st, "	1 "	Discharged.
4369	M	I.K	November 6th, 1901	6 "	Returned here.
4562	F	H.A	" 6th, "	2 "	"
4536	F	M.H	" 7th, "	6 "	Discharged.
4624	F	T.R	" 9th, "	2 "	"
4547	M	F.W	" 13th, "	6 "	"
4689	M	J.B	" 16th, "	2 "	"
4634	M	G.M	" 23rd, "	6 "	"
4678	M	I.D	" 29th, "	2 "	"
4579	M	P.C	December, 11th, "	6 "	Returned here.
3686	F	A.W	" 17th, "	1 "	Discharged.
4691	M	N.W	" 20th, "	6 "	Returned here.
4660	F	H S	" 21st, "	3 "	"
4701	M	C.C	" 23rd, "	6 "	Discharged.
4677	F	S E.L	" 24th, "	6 "	"
3997	F	M.D	" 24th, "	2 "	Returned here.
4728	M	J.D	January 10th, 1902	1 "	Discharged.
4669	F	M.A.McD	" 17th, "	6 "	"
4716	F	H.R.A	" 21st, "	6 "	"
4705	M	M G	February 1st, "	3 "	"
4535	F	B.M	" 10th, "	6 "	Returned here.
4713	F	S.R	March 4th, "	6 "	"
4724	M	W.N.A	" 7th, "	6 "	"
4757	F	S.E.F	" 27th, "	3 "	Discharged.
4665	F	M.B	" 27th, "	3 "	"
4683	M	R.C	" 28th, "	3 "	Returned here.
4107	M	J R	" 31st, "	2 "	Discharged.
4661	M	A.D	April 12th, "	3 "	"
4638	F	A M	May 8th, "	3 "	"
4722	F	M.J.A	" 10th, "	2 "	"
4762	F	T.P	" 19th, "	3 "	"
4589	F	A.McC	" 23rd, "	3 "	"
4715	F	E.P	June 2nd, "	3 "	Returned here.
4738	M	J.F	" 3rd, "	3 "	"
4784	M	T.F.P	" 11th, "	3 "	Discharged.
4447	M	H.J	" 14th, "	6 "	Still out.
4725	F	E R	" 18th, "	3 "	Discharged.
4671	M	R N	" 21st, "	3 "	"
4569	M	W H	July 2nd, "	1 "	Returned here.
4758	M	P.J.M	" 3rd, "	3 "	Still out.
4751	F	M.S	" 12th, "	2 "	Discharged.
3040	M	W.A.L	" 16th, "	4 "	Still out.
4717	F	A.H	" 18th, "	3 "	Discharged.
4752	F	L.W	" 19th, "	3 "	"
4398	M	J.McK	" 22nd, "	3 "	Still out.
4761	M	J.F	" 28th, "	4 "	"
4279	M	A.B	" 31st, "	3 "	"
4785	F	M.O.R	August 4th, "	1 "	Discharged.
4746	F	L.D	" 6th, "	2 "	"
4798	F	E.M.B	" 9th, "	3 "	Still out.
4813	F	C.H	" 13th, "	2 "	Returned here.
4692	M	J.E	" 18th, "	3 "	Still out.
3863	F	M.M	" 30th, "	2 "	Returned here.
4546	F	S.B	September 1st, "	2 "	Still out.
4721	F	S.L	" 2nd, "	3 "	"
4715	F	E.P	" 5th, "	2 "	"
4724	M	W.N.A	" 12th, "	1 "	"
4685	F	L.Z.H	" 17th, "	2 "	"
4820	F	M.P	" 20th, "	1 "	"
4811	F	E.M.K	" 27th, "	2 "	"
4838	F	I.W	" 29th, "	2 "	"
4836	F	E.R	" 29th, "	2 "	"

SUMMARY OF PROBATIONAL DISCHARGES.

	Males.	Females	Total.	Males.	Females	Total.
Number to whom probational leave was granted	.....	.....	.....	27	36	63
Discharged, recovered	10	17	27	.....	.....	.....
" improved	1	2	3	.....	.....	.....
" unimproved	.....	.....	.....	.....	.....	.....
Died before expiration of leave	.....	.....	.....	.....	.....	.....
Returned to Asylum	8	8	16	.....	.....	.....
Absent on probation on 30th September, 1902	8	9	17	.....	.....	.....

TABLE No. 10.

Shewing in *quinquennial* period the ages of those admitted, recovered and died during the year.

Ages.	Admitted.			Recovered.			Died.		
	Males.	Females	Total.	Males.	Females	Total.	Males.	Females	Total.
From 10 to 15 years	.....	.....	.....	.....	.....	.....	.....	.....	.....
" 15 to 20 "	2	3	5	.....	.....	.....	.....	.....	.....
" 20 to 25 "	5	8	13	4	1	5	.....	1	1
" 25 to 30 "	9	7	16	5	6	11	2	1	3
" 30 to 35 "	5	9	14	2	3	5	1	1	2
" 35 to 40 "	11	12	23	2	7	9	5	2	7
" 40 to 45 "	6	10	16	4	1	5	4	6	10
" 45 to 50 "	4	7	11	1	3	4	2	2	4
" 50 to 55 "	4	6	10	4	.....	4	.....	.....	.....
" 55 to 60 "	8	5	13	3	2	5	3	5	8
" 60 to 65 "	5	3	8	2	1	3	4	4	8
" 65 to 70 "	4	4	8	1	1	2	2	4	6
" 70 to 75 "	2	5	7	1	.....	1	1	3	4
" 75 to 80 "	4	3	7	.....	.....	.....	2	4	6
" 80 to 85 "	.....	2	2	.....	.....	.....	2	1	3
" 85 to 90 "	.....	.....	.....	.....	.....	.....	.....	.....	.....
" 90 to 95 "	.....	.....	.....	.....	.....	.....	.....	.....	.....
Unknown	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	69	84	153	29	25	54	28	34	62

TABLE No. 11.

Periods.	Duration of insanity prior to admission.	Length of residence of those remaining in Asylum on 30th Sept.	Periods of treatment of those who were discharged during the year.		
			Cured.	Improved.	Unimproved.
Under 1 month	27	10	1		1
From 1 to 2 months	18	9	2	2	
" 2 to 3 "	16	8	3		1
" 3 to 4 "	13	9	3		
" 4 to 5 "	4	9	1		
" 5 to 6 "	5	16	2	1	
" 6 to 7 "	5	10	2		
" 7 to 8 "	3	9	6	1	1
" 8 to 9 "	1	21	2		
" 9 to 10 "		5	4	2	
" 10 to 11 "	1	5	2		
" 11 to 12 "	1	7	2	1	
" 12 to 18 "	10	33	9	3	
" 18 months to 2 years	3	31	6	1	
" 2 to 3 years	10	59	1		1
" 3 to 4 "	6	55	2	1	1
" 4 to 5 "	4	41	1		
" 5 to 6 "	5	52	1		
" 6 to 7 "	2	45	1		
" 7 to 8 "	2	36	2		
" 8 to 9 "	2	33			
" 9 to 10 "		57	1		
" 10 to 15 "	6	151		1	
" 15 to 20 "	2	113			
" 20 years and upwards	1	189			
Not stated	6				
Totals	153	1,013	54	13	5

TABLE No. 12.

Shewing the nature of employment and the number of day's work performed by patients during the year.

Nature of employment.	No. of patients who worked.	Days worked.		
		Male.	Female.	Total.
Carpenter shop	10	2,853		2,853
Tailor's shop	4	1,234		1,234
Shoe shop	2	606		606
Engineer's shop	8	2,339		2,339
Blacksmith's shop				
Mason work	5	1,245		1,245
Repairing roads				
Wood yard and coal shed	2	608		608
Bakery	5	1,421		1,421
Laundry	30	2,965	6,551	9,516
Dairy	2	151		151
Butcher's shop and slaughter house	5	1,561		1,561
Piggery				
Painting	3	897		897

TABLE No. 12.—*Continued.*

Nature of employment.	No. of patients who worked.	Days worked.		
		Male.	Female.	Total.
Farm	47	11,554		11,554
Garden	67	16,900		16,900
Grounds				
Stable	11	3,599		3,599
Kitchen	26	2,549	6,726	9,275
Dining rooms	52	7,368	9,399	16,767
Officers' quarters				
Sewing rooms	62		13,866	13,866
Knitting	24		6,048	6,048
Spinning				
Mending	10		1,354	1,354
Wards				
Halls	358	56,205	61,599	117,804
Storeroom	3	463		463
General	156	23,673	14,516	38,189
Total	892	138,191	120,059	258,250

TABLE No. 13.

Shewing the Counties and Districts from which the patients remaining in residence on the 30th September, 1902, were originally received.

Counties and Districts.	Males.	Females.	Total.
Algoma District	1		1
Brant		4	4
Bruce	46	44	90
Carleton		1	1
Elgin	36	43	79
Essex	31	41	72
Grey	1	1	2
Haldimand		1	1
Hastings		1	1
Huron	55	57	112
Kent	44	41	85
Lambton	55	49	104
Middlesex	116	152	268
Norfolk		1	1
Ontario		1	1
Oxford	46	36	82
Perth	49	37	86
Simcoe		2	2
Victoria		1	1
Waterloo	1	5	6
Wellington	2	2	4
Wentworth		2	2
York	2	4	6
Not classed, unknown, etc.	1	1	2
Total	486	527	1,013

TABLE No. 14.

Patients transferred to other Asylums.

Initials of persons transferred.	Age.	Sex.		County originally admitted from.	Nationality.						Religious Denominations.					Social state.		Duration of insanity prior to admission.			Admitted by		Occupation.	Asylum transferred to.
		Male.	Female.		Canadian.	English.	Irish.	Scotch.	United States.	Other countries or unknown.	Church of England.	Roman Catholic.	Presbyterian.	Methodist.	Other denominations.	Married or widowed.	Unmarried.	Years.	Months.	Weeks.	Warrant.	Certificate.		
L. M.	37	....	F	Oxford	1	....	....	....	....	....	....	....	....	1	....	....	1	....	3	....	....	C	Dom. Servant	Cobourg
A. H.	57	....	"	Middlesex	1	....	....	....	....	....	1	....	....	....	....	1	....	....	....	2	....	C	Housewife	"
A. F.	66	....	"	Oxford	1	....	....	....	....	....	1	....	....	....	....	1	....	1	....	....	W	....	Dom. Servant	"
M. B.	63	....	"	"	1	....	....	....	....	....	....	1	....	....	....	1	....	5	....	....	W	....	Housewife	"
M. J. C.	70	....	"	Elgin	1	....	....	....	....	....	....	....	....	1	....	1	....	6	....	....	....	C	"	"
M. B.	30	....	"	Lambton	1	....	....	....	....	....	....	....	1	....	....	....	1	....	11	....	W	....	Home Duties	"
S. M. J.	72	....	"	"	1	....	....	....	....	....	....	....	....	1	....	1	....	....	....	10	..	C	Domestic	"
J. V.	64	....	"	Huron	....	1	....	....	....	....	....	....	....	1	....	1	....	....	....	5	....	C	Home Duties	"
M. A. A.	62	....	"	Perth	1	....	....	....	....	....	1	....	....	....	....	1	....	5	....	....	W	....	Domestic	"
P. B.	52	....	"	Essex	1	....	....	....	....	....	....	1	....	....	....	1	....	2	....	....	W	....	Housewife	"
M. A. D.	62	....	"	Middlesex	....	1	....	....	....	....	1	....	....	....	....	1	....	....	....	....	W	....	Servant	"
L. A. D.	50	....	"	"	1	....	....	....	....	....	....	....	....	1	....	....	1	....	....	2	....	C	Domestic	"
J. M.	41	....	"	Bruce	1	....	....	....	....	....	....	....	1	....	....	....	1	2	....	....	....	C	Home Duties	"
J. O'N.	57	....	"	Wentworth	....	....	1	....	....	....	....	1	....	....	....	1	....	.	2	....	W	....	None given	"
C. R. F.	57	....	"	Middlesex	1	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	C	Dress Maker	"
J. L.	67	....	"	"	....	....	....	1	....	....	....	....	1	....	....	....	1	6	....	....	....	C	Housekeeper	"
E. M.	64	....	"	"	....	....	1	....	....	....	....	1	....	....	....	....	1	....	9	....	....	C	Servant	"
R. P.	61	....	"	Kent	1	....	....	....	....	....	....	....	....	....	1	1	....	2	....	....	W	....	"	"
C. E. C.	60	....	"	Huron	....	1	....	....	....	....	....	....	....	1	....	1	....	2	....	....	W	....	Housewife	"
M. G.	?	....	"	Middlesex	1	....	....	....	....	....	....	....	....	....	1	....	1	....	....	2	W	....	Servant	"
M. McC.	65	....	"	Wellington	....	....	1	....	....	....	....	1	....	....	....	....	1	....	..	....	....	C	"	"
L. G.	36	....	"	Perth	1	....	....	....	....	....	....	....	....	1	....	1	....	6	....	....	W	....	Housewife	"
M. A. L.	63	....	"	"	....	....	1	....	....	....	....	....	....	1	....	1	....	....	4	....	....	C	Home Duties	"
C. L.	58	....	"	Middlesex	....	....	....	1	....	....	....	....	1	....	....	....	1	3	....	....	....	C	Servant	"
E. L.	66	....	"	Huron	1	....	....	....	....	....	....	....	....	1	....	1	....	13	....	....	W	....	Weaver	"
A. McP.	33	....	"	Lambton	....	....	....	1	....	....	....	..	1	....	....	....	1	....	1	....	....	C	Housemaid	"
M. R.	59	....	"	Middlesex	....	....	1	....	....	....	....	1	....	....	....	....	1	....	6	....	....	C	Servant	"
M. W.	54	....	"	Elgin	1	....	....	....	....	....	1	....	....	....	....	1	....	5	..	....	....	C	Housekeeper	"
R. H.	51	....	"	Huron	1	....	....	....	....	....	1	....	....	....	....	1	....	....	9	....	W	....	Housewife	"
E. R.	57	....	"	Oxford	1	....	....	....	....	....	1	....	....	....	....	....	1	3	....	....	....	C	"	"
A. T.	61	....	"	Huron	....	....	....	1	....	....	....	....	....	....	1	....	1	22	....	....	....	C	Servant	"
H. A.	49	....	"	Bruce	1	....	....	....	....	....	1	....	....	....	....	1	....	....	12	....	W	....	Housewife	Hamilton
G. S.	26	....	"	Lambton	1	....	....	....	....	....	....	....	1	....	....	....	1	3	....	....	....	C	Spinster	Toronto

TABLE No. 15.

Number of articles passing through Laundry during the year ending September 30th, 1902.

Article.	Number.	Article.	Number.
Aprons	27,157	Sheets	92,719
Dresses	15,441	Blankets	8,834
Skirts	11,979	Quilts	7,922
Drawers	23,574	Canvas Quilts	72
Chemises	43,275	Pillowshams	1,600
Flannel Chemises	6,801	Pillows	42
Night Dresses	15,406	Pillowticks	319
Waists	3,175	Pillowslips	59,184
Handkerchiefs	8,943	Bolsterslips	157
Caps	437	Mattresses	81
Collars	6,808	Ticks	3,239
Cuffs, prs. of	5,215	Towels	64,425
Neckties	759	Bureau Covers	1,178
Shawls	1	Sideboard Covers	23
Jackets	2	Tray Covers	256
Fichus	1,370	Table Cloths	17,408
Guernseys	40,172	Table Covers	87
Mitts, prs. of	5	Table Napkins	4,198
Stockings, prs. of	19,461	Sofa Pillow Covers	479
Socks, prs. of	21,674	Curtains and Blinds	476
Shirts	29,436	Laundry Wraps and Bags	1,410
Flannel Shirts	5,784	Carpet, pieces of	18
Coats	1,586	Carriage Lap Robes	27
Pants	2,355	Pudding Cloths	2,425
Vests	633		
Overalls	54	Total	568,081

TABLE No. 16.

Articles made and repaired in the wards during the year ending September 30th, 1902.

	Made.	Repaired.		Made.	Repaired.
Dresses	2,671	2,705	Sofa Pillow Covers	71	....
Dresses, Uniform	55	18	Embroidered Covers	6	....
Skirts	275	1,335	Blanket Rugs	48	....
Aprons	1,954	736	Quilts	....	109
Aprons, Uniform	248	58	Ticks	208	1,238
Chemises	1,257	1,929	Mattresses	324	....
Flannel Chemises	25	367	Blankets	....	492
Nightdresses	225	425	Laundry Wraps	123	...
Drawers	436	1,198	Towels	2,785	....
Shirts	705	1,549	Table Cloths	368	....
Flannel Shirts	93	336	Table Covers	19	....
Caps, Women's	70	....	Table Napkins	12	....
Coats	....	660	Tray Cloths	10	....
Pants	....	893	Sideboard Covers	10	....
Vests	....	337	Bureau Covers	48	...
Guernseys	....	127	Drapes for Windows, etc	7	....
Waists	9	....	Curtains	76	....
Neckties	384	....	Bags	38	...
Socks, prs. of	....	3,106	Cushion Covers	8	....
Stockings, prs. of	....	1,272	Library Books Covered	908	....
Bibs	23	....	Chairs Cane Seated	....	6
Sheets	1,721	207			
Pillowslips	1,211	53	Total	16,838	19,055
Pillowshams	175	...			
Pillowticks	4	....			
Pillows	180	...			
Sofa Pillows	48	....			

Rags prepared for rag carpet. 469 yards rag carpet made.

TABLE No. 17.

Articles made and repaired in Tailor's Shop during the year ending Sept. 30th, 1902.

	Made.	Repaired.
Coats, Uniform	44	83
Pants, "	63	52
Vests, "	2	1
Pants	694	28
Coats	291	15
Vests	249	16
Drawers, Men's	184	..
Overcoats	1	5
Overall pants	41	..
Overall coats	23	..
White coat	1	..
Pyjamas suits	2	..
Sleigh robes	..	3
Canvas stretcher	1	..
Window blinds	112	..
Flags, quilted and bound	1	4
Sleeves (prs. of)	24	..
Cloth slippers, (prs. of)	61	..
Total	1,794	207

TABLE No. 18.

Amount of work done in Shoemaker's Shop during the year ending Sept. 30th, 1902.

Men's boots	made	1 prs.
" shoes	"	1 "
Women's "	"	1 "
Men's slippers	"	116 "
Total		119 prs.

845 pairs boots, shoes and slippers repaired.
43 " slipper soles cut.

Mitts	made	8 prs.
Belts	"	2
Waterproof aprons	"	2
Cushion for cart	"	1

2 mail bags repaired.
2 razor strops cut.
6 rubber sheets eyeleted.
Some repairs to harness, mitts and suspenders.

TABLE No. 19.

Articles made in Tinsmith's Shop during the year ending Sept. 30th, 1902.

Bake pans	38
Tin cups	108
Tin trays	16
Milk pails	24
Pails with covers	2
Slop pails	12
Dust kettles	11
Measures	2
Brooder	1
Chicken water troughs	12
Buckets, night	18
Scoops	2
Potato strainer	1
Skimmer	1
Watering cans	2
Oil can	1
Tea pots	6
Coffee pot	1
Water Cooler	1
Tea kettle	1
Milk cans	4
Bath sprinklers	25
Tea cans	2
Tin potato baskets	4
Bread pans	24
Boiler cover	1
Colander cover	1
Steam kettle	1
Refrigerator lined	1

A large amount of tinware repaired.

TABLE No. 20.

Articles made and repaired in Sewing Room during the year ending Sept. 30th 1902.

	Made.	Repaired.
Dresses	33	..
" Uniform	54	..
Aprons	7	..
Baby skirts	4	..
Baby dresses	4	..
Chemises	2	..
Neckties	66	..
Bibs	1	..
Waists	3	..
Skirts	3	..
Shirts	3	1,375
Flannel shirts	..	154
Socks (prs. of)	..	11
Stockings (prs. of), flannel	1	..
Drawers "	2	170
Ticks	166	..
Shrouds	63	..
Towels	24	..
Table cloths	2	..
Table napkins	12	..
Pillow ticks	176	..
Pillows	14	..
Carriage and sleigh covers	19	..
Quilts	..	29
Blankets	..	1
Cushion covers	4	..
Pudding cloths	37	..
Bureau covers	8	..
Pillowshams	2	..
Carpets	1	1
Footstools covered	5	..
Tea bags	14	..
Curtains	13	..
Total	741	1,741

TABLE No. 21.

Amount of Knitting done in Wards during the year ending Sept. 30th, 1902.

Stockings	136 pairs
Refooted stockings	109 "
Socks	381 "
Refooted socks	337 "
Mitts	1 pair
Garters	10 pairs
Total	974 pairs

MACHINE KNITTING.

Stockings	627 pairs
Socks	952 "
Total	1,579 pairs

TABLE No. 22.

Yield of the asylum farm by acres was as follows:

Hay	35 acres	74 tons.	Ensilage	14 acres	300 tons
Straw		70 "	Potatoes	21 "	3,150 bush
Oats	34 acres	1,972 bush.	Mangolds	8 "	7,200 "
Corn in cob	15 "	1,700 "			

Yield of Trebilcock farm by acres as follows:

Oats	5 acres	210 bush.	Corn	7 acres	560 bush.
Straw		6 tons.	Millet for pasture	25 "	
Potatoes	9 acres	1,350 bush.			

The yield of the main garden at the asylum was for the year just ended as follows:

Asparagus	5,905	bunches	
Beans	37	bushels	
Beets	3,320	bunches	
"	1,080	bushels	
Cabbage	13,963	heads.	
" pickling	470	"	
" kale	1,085	"	
Cauliflower	6,954	"	
Carrots	5,070	bunches	
"	856	bushels	
Celery	7,800	sticks	
Corn, sweet	2,976	dozens	
Cucumbers	376	"	
Cucumbers, pickling	363	quarts	
Horseradish	150	bunches	
Lettuce	1,049	dozens	
Onions, green	11,422	bunches	
" dried	825	bushels	
" pickling	1,224	quarts	
Parsnips	1,050	bushels	
Peas, green, in pod	105½	"	
Peppers, large	92	dozens	
" cayenne	56	quarts	
Potatoes, early	586	bushels	
Radish, garden	1,280	bunches	
Rhubarb	5,435	"	
Salsify	1,130	"	
Spinach	332	bushels	
Sea kale beet	132	"	
Tomatoes	460	"	
Turnips, swede	300	"	
" white garden	1,657	bunches	
Vegetable marrows	337		

Fruit.

Apples	900	bushels
" crab	129	"
Currants, red	2,553	quarts
" black	320	"
Cherries	112	"
Gooseberries	3,078	"
Plums	24	pecks
Pears	338	"
Peaches	140½	"
Raspberries	885	quarts
Strawberries	1,063	"

Herbs.

Sage	350	bunches
Savory	600	"
Thyme	200	"
Mint	150	"
Parsley	150	"

Grown for use in the ornamental grounds and for decorative purposes, 5,552 greenhouse plants, 51,505 bedding plants, 26,435 annuals raised under glass.

The crop grown on the sewage field was as follows:

Asparagus	2,056 bunches	Onions	5,630 bunches
Beans	142½ bushels	"	219 bushels
Cabbage	8,014 heads	Peas	190½ "
Celery	7,092 sticks	Rhubarb, forced	2,789 bunches
Cucumbers	1,751	Radishes, forced	39 "
Lettuce, forced	1,189 bunches	Strawberries	1,021 quarts
Lettuce	1,168 "	Sea kale	1,268 bunches
Melons, musk	459	Tomatoes	17½ bushels
" water	45		

TABLE No. 23.

Return showing the maintenance of fifteen horses:

Kinds, quantity and value of food consumed:			
77,100 lbs hay	$ 328 39	Shoeing for the year	$ 118 81
2,430 bush. oats	840 00	Stableman's wages for the year	216 00
3,000 lbs. bran	30 75	Total cost of stable	$1,539 95
8,000 lbs. ensilage corn	6 00	Average cost per animal per annum	102 66

TABLE No. 24.

Return showing quantity and cost of milk produced:

Number of cows on farm	41	Cowman's wages (half charged to piggery)	$ 156 00
" " in milk	41		$1,824 36
Daily average number quarts per cow	9⅝	Dr. To exchange of dairy stock, viz.:	
Total number of quarts produced	143,901	Bought 36 cows for $1,481 00	
Quantity and value of food consumed:		Sold 36 " 1,470 20	10 80
50,900 lbs. corn chop	$ 330 85		$1,835 16
8,000 " bran	77 80	Cost per quart to produce milk	1¼
66,300 " hay	271 45	Maintenance per animal per annum	44 50
255,000 " ensilage corn	190 14		
426,960 " mangold wurzels	498 12		
Pasture	300 00		

TABLE No. 25.

LONDON ASYLUM. Farm Exchange Account for the year ended 30th September, 1902.

1901.	Disbursements.	$ c.
October 2..	To cash paid C. Millson.....1 milch cow	45 00
" 2..	" W. E. Hiscott ... ..duty on clarionette.....	8 00
" 19..	" W. Needham .....1 milch cow	45 00
" 26..	" R. Hurston ..... manure	65 00
" 26..	" A. M. Hamilton.....chicken feed	14 00
" 26..	" G. H. Belton .....lumber for piggery	58 18
" 26..	" W. J. Craig..... lumber for cowstable....	48 58
" 26..	" J. A. McArthur .... 1 milch cow	31 00
Nov'ber 7..	" A. Cornish .... 2 do	84 00
" 12..	" do ....4 do	168 00
" 13..	" W. Needham.....1 do	34 00
" 15..	" Jos. Dudley ... .2 Wheelbarrows	10 00
" 19..	" J. Gammage & Sons ..Bulbs	34 50
" 19..	" J. D. Saunby ....2 tons bran	31 00
" 19..	" R. Little & Co .....cotton to cover carriage.	14 91
" 19..	" A.M.Hamilton & Sons.chicken feed..... ..	10 60
" 19..	" Jos. Reid & Co.. ... for henery....	2 53
" 27..	" W. Stevely & Son, rep to furnace in farmers hse	41 00
" 27..	" Massey, Harris Co ....gang plow, etc.....	27 95
" 27..	" W. J. Craig.....lumber for sewage field..	9 20
" 27..	" A. Johnston. ..... bricks do ..	50 09
" 30..	" Jno. McArthur .... 1 milch cow	39 00
Dec'ber 5..	" D. C. Flett & Son ...1 Yorkshire sow	35 00
" 6..	" A. Cornish . 7 milch cows.....	289 00
" 18..	" Hoskin and Mallock. repairs to waggons.. ...	30 75
" 18..	" J. W. Jones ... .stove for slaughterhouse.	10 50
" 18..	" W. Stevely & Sons, stove & pipes for greenhouse	11 80
" 18..	" J. D. Saunby.....1 ton of bran	19 00
" 18..	" Geo. Heaman .....repairs to carriages.....	25 00
" 18..	" A.M.Hamilton&Sons, chicken feed, etc	14 80
" 31..	To balance	337 62
		1,645 01
1902.		
Febr'ry 7..	To cash paid Peter Irnlay.....1 milch cow.....	39 00
" 18..	" T. Dexter & Son. . bran and shorts	120 50
" 18..	" J. D. Saunby .... . bran.	98 00
" 18..	" M. Scarrow .... farm harness	35 25
" 18..	" Thos. Trebilcock ... manure	25 00
" 18..	" A.M.Hamilton & Son, chicken feed.....	23 10
" 18..	" Jas. Anderson.....cutting ice.....	18 75

1901.	Receipts.	$ c.
October 1..	By balance.....	1,332 55
" 22..	By cash from R. Hill ..... 1 sow	20 00
" 31..	" Maintenance account.eggs.....	42 23
Nov. 21..	" H. Bender ....12 chickens.....	8 00
" 27..	" A. Blackwell ....1 cock and pullet..... ..	2 00
Dec. 7..	" R. Hunter..... .6 dry cows.....	210 00
" 13..	" C. S. Hyman & Co...1 hide 55" @ 7c.	3 85
" 31..	" Maintenance account.eggs.....	26 38
		1,645 01
1902.		
January 1..	By balance	337 62
" 2..	By Cash from S. Butterfield.....2 pullets at $3 each	6 00
" 2..	" Wm. Dawn .....1 Tamworth boar.	10 00
" 25..	" W. Bignall.....1 bull	70 00
" 25..	" do ....1 cow	55 00
" 31..	" Maintenance ac't ..eggs.....	10 47
February 28..	" do .. do	18 48

TABLE No. 25.

LONDON ASYLUM—Farm Exchange Account for the year ended 30th September, 1902.—*Concluded.*

1902.	Disbursements.	$ c.
Febr'ry 18..	To cash paid Geo. Heaman ..... repairing waggons	18 30
" 18..	" A. G. Stroyan..... manure	10 00
" 18..	" W. H. Dayman.....12 baskets at 75c..	9 00
" 18..	" Warkman and Ward..repairing cutting box..	2 50
" 18..	" Chas. Johns.....repairing	1 00
March 3..	" Geo. Dobbie.....1 milch cow	33 00
" 5 ..	" B. A. Fitzmaurice....flower pots	40 50
" 15..	" Edward Flannagan...1 milch cow	42 00
" 17..	" Jno. Pinel..... .....1 do	40 00
" 19..	" Jno. Snow ..... 1 bull	27 00
" 24..	" F. F. Downing..... 3 milch cows.....	130 00
" 31..	To balance.....	427 68
		1,140 58
April 5..	To cash paid T. Orman ..... 1 milch cow	40 00
" 7..	" J. H. McMechan .....1 do	45 00
" 7..	" A. M. Hamilton & Son..chicken feed.....	14 05
" 7..	" A. H. Gillies & Son ..sawdust	10 00
" 7..	" W. Stevely & Son ....stove pipes, etc	4 40
" 7..	" London Box Mfg Co..sawdust	1 50
" 26..	" Jas. Coursey. .....1 milch cow	43 00
" 28..	" Edward Gust.....1 do	50 00
May 5..	" J. Cowan & Co.....garden tools..... .. .	74 45
" 5..	" J. Dexter & Son .....feed for pigs.....	66 50
" 5..	" A. M. Hamilton&Sons, chicken feed.....	13 70
" 27..	" J. F. Logan.....1 bay mare	150 00
" 28..	" Brown Bros. Co .....trees	78 00
" 28..	" Thomas Ball. .....bones and polish.....	68 10
" 28..	" do .....seed potatoes	55 62
June 16..	" Jas. Reid & Co.....hardware, tools, etc.....	45 42
" 16..	" B. A. Fitzmaurice....flower pots.	4 50
" 16..	" Thomas Ball.... .....fruit baskets.....	12 00
" 16..	" W. H. Dayman .....baskets	28 20
" 16..	" A. M. Hamilton & Son, chicken feed	29 35
" 16..	" G. Gammage & Son...rose trees	38 50
" 16..	" Geo. Taylor & Son... garden tools, etc.....	90 50
" 16..	" T. Dexter & Son .... bran	160 00
" 30..	To balance	764 62
		1,886 81

1902.	Receipts.	$ c.
March 3..	By cash from Brockville Asylum..12 baskets at $1	12 00
" 7..	" Oby Gandusen. ... 15 loads ice at 50c	7 50
" 7..	" Isaac Sand .....16 do do	8 00
" 10..	" B. Lawson ..... 7 do do	3 50
" 10..	" T. B. Miller. .... 10 do do	5 00
" 11..	" Thos. Hogg ..... 1 boar	10 00
" 11..	" Wm. Fleming..... 7 cattle, 8,200 lb. at 4c..	328 00
" 14..	" C. S. Hyman & Co., 1 hide, 55 lb. at 5c ..	2 75
" 20..	" S. Butterfield ..... 4 cockrells at $1.	4 00
" 28..	" Maintenance ac't...pork.	231 96
" 28..	" do ...eggs.	20 80
		1,140 58
April 1..	By balance	427 68
" 4..	By cash from Jas. Coursey.....6½ loads of ice at 50c....	3 25
" 5..	" A. B. Douglas .....10 bush. seed oats at 60c.	6 00
" 8..	" R. Hunter..... ...3 dry cows.....	100 00
" 29..	" Maintenance.....eggs.....	35 64
May 14..	" Thos. Flannagan....3 fat cattle, 3,500lb at 4c.	140 00
" 20..	" W. J. McLeod .... 1 mare.	50 00
" 26..	" Thos. Flannagan ...4 fat cattle, 4,555lb at 4c.	182 20
" 27..	" J. K. Kidd, 60 live hogs, 1,220lb, at $6.60	805 20
" 27..	" do 2 do for.....	40 00
" 31..	" Maintenance ac't....eggs	35 95
June 7..	" J. H. McEachren...1 pig.....	18 00
" 14..	" C. S. Hyman & Co..1 hide.	2 20
" 28..	" Maintenance ac't....eggs.....	40 69
		1,886 81

July 8	To cash paid	Thos. Trebilcock	manure	25 00
" 10	"	M. Scarrow	harness	59 00
" 11	"	J. Cowan & Co	hardware	8 50
" 11	"	A.M. Hamilton & Son,	chicken feed	15 00
" 19	"	Wm. Jones	1 bay horse	140 00
" 21	"	Samuel Duffin	1 milch cow	33 00
July 22	"	Geo. Heaman	repairs	54 85
" 22	"	J. Johnston	1 milch cow	35 00
" 26	"	W. A. Cook	1 do	43 50
August 8	"	Henry Case	1 do	48 00
" 8	"	Jos. Dawson	1 do	47 50
" 20	"	F. Whetter	1 do	50 00
" 21	"	J. D. Saunby	shorts	66 00
" 21	"	A. Westman	fencing	28 20
" 21	"	W. J. Craig	cedar posts	20 00
" 21	"	A.M. Hamilton & Son,	chicken feed	14 85
Sept'ber 6	"	Ont. Wind Eng. & Pump Co,	basins for cow sta.	75 00
" 12	"	Geo. Cairncross	rye	25 00
" 18	"	Duncan Stewart	1 boar	25 00
" 23	"	A.M. Hamilton & Son,	chicken feed	101 90
" 23	"	M. Scarrow	harness	48 00
" 23	"	Massey-Harris Co.	repairs	10 36
" 27	"	F. G. Bowley	corn truck	40 00
" 30	To balance			466 76
				1,480 42

July 1	By balance			764 02
" 30	By cash from	Maintenance ac't	eggs	33 18
August 1	"	Brockville Asylum	baskets	12 00
" 15	"	P. F. Gleeson	2 sows	27 00
" 24	"	D. McIntye	14 hogs, 3,000 lb at 6¾	202 50
" 30	"	Maintenance ac't.	eggs	24 88
Sept'm. 5	"	D. McIntyre	14 hogs, 3,010 lb at 6¾c.	203 17
" 13	"	do	7 do 1,300 do	87 75
" 23	"	do	7 do 1,200lb at $6.60.	79 20
" 25	"	W. M. Lockwood	1 cockerel	5 00
" 30	"	L. McKinnon	seed potatoes	3 00
" 30	"	Maintenance ac't.	eggs	3 960
				1,480 42
October 1	By balance			466 76

ANNUAL REPORT OF THE MEDICAL SUPERINTENDENT OF THE ASYLUM FOR THE INSANE, KINGSTON, FOR THE YEAR ENDING SEPTEMBER 30TH, 1902.

Kingston, October 1st, 1902.

To Robert Christie, Esq.,
Inspector of Asylums, Ontario :

Sir,—In accordance with the statutory requirements, I have the honor to submit the forty-seventh annual report of this hospital (the twenty-fifth since it became a Provincial Institution), for the year ending September 30th, 1902.

—	Male.	Female.	Total.	Male.	Female.	Total.
There were in residence, October 1st, 1901						
Admitted during the year :						
By Lieutenant-Governor's Warrant	13	5	18			
" medical certificate	32	50	82			
				45	55	100
Total number under treatment during the year				357	342	699
Discharges during year :						
As recovered	12	17	29			
" improved	5	9	14			
" unimproved	1	4	5			
Total number of discharges during year	18	30	48			
Died	17	30	47			
Eloped	3		3			
Transferred		12	12			
				38	72	110
Remaining in residence, September 30th, 1902				319		589
Number of applications on fyle	5	5	10			

The longer one remains in charge of a Hospital for the Insane, the more does he hesitate about sending forth an annual report, knowing that the statistics given convey so little of the real truth to the readers of blue books. Even for the sake of comparison, many of the figures are of little value, as the point of view of those who make them up is not always the same.

Take, for example, the question of recoveries. There seems to be a good deal of difference of opinion in regard to what constitutes a recovery from mental disease, and it is not always the institution furnishing the largest percentage of recoveries that is doing the best work, simply because the term "recovery" is so frequently misapplied. The table supposed to show the causes of insanity is apt to be the most misleading of all, because it is compiled from data furnished largely by the friends of patients, who, naturally, are governed by a desire to hide family skeletons, rather than to furnish scientific facts. In this way we are prone to underestimate the part heredity plays in the evolution of insanity, to overlook the physical basis of disease, and perhaps exaggerate the moral causes, which, after all, are usually only a part of the story in the development of insanity. Then, too, the confusion resulting from the mixing up of predisposing and exciting causes makes this intricate table more hopeless than ever. As it is generally adopted, though, we are forced to accommodate ourselves to the exigencies of custom, and endeavor to make the return conform as nearly to

the truth as is possible. No one pretends for a moment, though, that it is accurate, because we realize that it is not based upon facts, but largely upon supposition and vague theory,—for which we are not responsible.

Admissions, Discharges, Deaths, Etc.

Eighteen of the one hundred patients admitted came from the gaols, a proportion infinitely smaller than it would have been a few years ago, and yet far too large. Possibly the necessity for confinement in gaol did not exist in a single case, but until the counties become directly responsible for the maintenance of their indigent insane, the Warrant system will continue to be misapplied. It is the custom in some quarters to find fault with the Government for the evils which come out of the Warrant system; and yet those to blame are the local authorities. One would think for example, that it must indeed be a remarkable case necessitating gaol care, in a town or city in which a Hospital for the Insane existed, and yet even acute cases find their way there without the slightest reference to the Hospital authorities for aid. No matter how full the wards, our doors are never closed to a really urgent case, and yet we are helpless when a patient is once incarcerated in the gaol, the usual round of official procedure must be gone through.

This does not make much difference perhaps to some of the chronic demented, but when patients suffering from acute disease are thus detained, the consequences are apt to be serious. Five women were admitted from the gaols. In not one of these cases was confinement in a prison called for.

The recoveries were almost as numerous as usual, and the percentage, when the character of the admissions is considered, very gratifying.

The death rate was unusually large, but when it is remembered that thirteen of those who died had passed the allotted three score years and ten, the reason of the large death rate is plain. General Paresis and Phthisis were prominent, too; in fact the former disease is apparently on the increase in this district. When we learn that the specific disease, which in a great majority of cases of General Paresis, has determined its evolution, is much more prevalent than formerly, the reason why is evident.

One regrettable suicide occurred, the first in many years. The details of this tragedy were fully reported to you at the time of its occurrence. The Coroner and County Attorney, who fully investigated the facts at the time, deemed an inquest unnecessary, as it was plainly apparent that negligence had not been shown by the night nurse in charge. I may say, though, that I am by no means satisfied with the arrangements for night nursing, and hope, with your concurrence, to establish a much more advanced system than that in vogue at present. This question of night nursing is receiving much attention in Great Britain, and I fully concur with the opinion expressed, that just as much care should be given to intelligent night nursing as to day nursing. With our staffs as at present constituted this is impossible, and the few nurses left on duty at night have their hands more than full watching the suicidal, and caring for the troublesome ones, without doing all that should be done for the acute cases.

The plan of having an officer on duty at night, preferably a woman who is a trained nurse, to supervise a staff of nurses large enough to accomplish all that should be done is an excellent one, and when the Home for Nurses is established, I trust that we may be permitted to carry this suggestion into effect.

Nursing of the Tuberculosis.

The evils of having tuberculous patients in the general wards are

sufficiently apparent without going into detail. Ordinarily we have isolated as many as possible in Beechgrove Hospital. This summer we went a step further, and had a large tent erected for tuberculous men. The results were most gratifying, because we were able to isolate these patients, and to benefit their physical health in such a marked degree.

Coal Supply.

As we burn hard coal very largely in our furnaces, the coal strike in the United States appeared likely to prove a serious matter.

The contractors were anxious to fulfil their obligations, but were unable to secure the anthracite required. They agreed, however, to furnish as large a quantity of soft coal screenings as possible, and, by being very careful of the hard coal left over from last year, we hope to be able to manage until the opening of navigation. It will be necessary, though ,to provide for a fresh supply of fuel much earlier in the new year than is usually done.

Farm.

Farming operations have been fairly successful, although the corn for ensilage failed almost completely. It is a question if it would not be a paying investment to purchase more land, as we could cultivate a larger tract with advantage and economy.

Boilers.

The two new boilers (100 h.p. each), being installed, will prove of great usefulness, as the old boilers were becoming unsafe. It is to be hoped that a third new boiler will be placed in position at an early date. This is required to make the plant complete, and as efficient as it should be in order to do the work required.

Home for Nurses and Convalescents.

The request made last year for a Home for Nurses and Convalescents was adopted, and before the end of this season we hope to see the roof on a building that should be an ideal one for the purpose designed. It has been placed between Beechgrove Hospital and Rockwood, and, although a late start was made, rapid progress is now being made with the stone work.

Changes on Staff.

Several changes have taken place on the staff. Miss Frances Wilson, trained nurse, resigned in September, 1901. She has been replaced by Miss M. Thompson, a graduate of the Toronto Sick Children's Hospital School for Nurses.

Dr. J. M. Forster, who was Assistant Superintendent for eight years, was transfered to the Assistant Superintendency of Mimico Asylum on July 1st, 1902, and was replaced by Dr. W. C. Barber.

Dr. Forster had been so intimately associated with the workings of Rockwood for so many years, that his departure was regarded with deep sorrow by his numerous friends here. He is certainly a painstaking and devoted officer, and no doubt will be as successful in his new field of work as he was here.

I have the honor to be, Sir,
Your Obedient Servant,

C. K. CLARKE,
Medical Superintendent.

ANNUAL STATISTICAL REPORT

Of the operations of the Asylum for the Insane, Kingston, for the year ending 30th September, 1902.

TABLE No. 1.

Shewing movements of patients in the Asylum for the official year ending September 30th, 1902.

——	Male.	Female.	Total.	Male.	Female.	Total.
Remaining, October 1st, 1901	.....	.....	.....	312	287	599
Admitted during year :—						
By Lieutenant-Governor's warrant	13	5	18			
By medical certificate	32	50	82			
				45	55	100
Total number under treatment during year	.....	.....	.....	357	342	699
Discharges during year :—						
As recovered	12	17	29			
As improved	5	9	14			
As unimproved	1	4	5			
Total number of discharges during year	18	30	48			
Died	17	30	47			
Eloped	3	.....	3			
Transferred	.....	12	12			
				38	72	110
Remaining in Asylum, 30th September, 1902	.....	.....	.....	319	270	589
Total number admitted since opening of Asylum	.....	.....	.....	1,952	1,658	3,610
" discharged	762	680	1,442			
" died	591	457	1,048			
" eloped	49	1	50			
" transferred	231	250	481			
				1,633	1,388	3,021
" remaining, 30th September, 1902	.....	.....	.....	319	270	589
No. of applications on fyle	.....	.....	.....	5	5	10

TABLE No. 2.

Shewing the maximum and minimum number of patients resident in the Asylum, the total number of days' stay of patients, and the daily average number of patients in the Asylum, from the 1st October, 1901, to 30 September, 1902.

	Male.	Female.	Total.
Maximum number of patients in residence (on 1st Dec., 1901	311	288	599
Minimum " " " (on 10th April, 1902	313	269	582
Collective days' stay of all patients in residence during year	114,146	101,345	215,491
Daily average population	312.7	277.6	590.3

	Admissions of year.			Total admissions since opening.			
	Male.	Female.	Total.	Male.	Female.	Total.	Total.
Social state.							
Married	19	29	48	768	868	1,636	1,684
Widowed							
Single	26	26	52	1,139	735	1,874	1,926
Not reported							
Total	45	55	100	1,907	1,603	3,510	3,610
Religion.							
Presbyterians	3	8	11	286	260	546	557
Episcopalians	11	12	23	399	293	692	715
Methodists	17	16	33	368	373	741	774
Baptists	1		1	34	35	69	70
Congregationalists				9	3	12	12
Roman Catholics	10	15	25	617	542	1,159	1,184
Mennonites							
Quakers							
Infidels							
Other denominations		3	3	143	78	226	229
Not reported	3	1	4	46	19	65	69
Total	45	55	100	1,907	1,603	3,510	3,610
Nationalities.							
English	4	6	10	164	99	263	273
Irish	2	7	9	305	273	578	587
Scotch		1	1	81	83	164	165
Canadian	37	39	76	1,203	1,030	2,233	2,309
United States	2	1	3	19	19	38	41
Other countries		1	1	61	29	90	91
Unknown				74	70	144	144
Total	45	55	100	1,907	1,603	3,510	3,610

TABLE No. 3.

Shewing the Counties from which patients have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total admittance.			Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
Algoma District				3	2	5	5
Brant				6	7	13	13
Bruce				3	6	9	9
Carleton		1	1	200	160	360	361
Dufferin							
Elgin				3	4	7	7
Essex				3	2	5	5
Frontenac	11	11	22	307	306	613	635
Grey				7	9	16	16
Haldimand				6	7	13	13
Halton				3	2	5	5
Hastings	15	10	25	142	108	250	275
Huron				6	5	11	11
Kent				2		2	2
Lambton				12	2	14	14
Lanark		1	1	123	121	244	245
Leeds and Grenville				138	121	259	259
Lennox and Addington	5	9	14	131	100	231	245
Lincoln				9	7	16	16
Nipissing					1	1	1
Middlesex				8	6	14	14
Muskoka District				1	1	2	2
Norfolk				7	5	12	12
Northumberland and Durham	5	8	13	71	103	124	187
Ontario				19	23	42	42
Oxford				14	4	18	18
Peel				4	1	5	5
Perth				10	9	19	19
Peterborough				9	13	22	22
Prescott and Russell				48	32	80	80
Prince Edward	2	2	4	65	51	116	120
Renfrew	5	11	16	103	91	194	210
Simcoe				13	12	25	25
Stormont, Dundas and Glengarry				145	130	275	275
Victoria				5	13	18	18
Waterloo				11	4	15	15
Welland		1	1	6	4	10	11
Wellington	1		1	5	4	9	10
Wentworth				14	20	35	35
York	1	1	2	40	59	99	101
Not classed				204	48	252	252
Total admissions	45	55	100	1,907	1,603	3,510	3,610

TABLE No. 4.

Shewing the Counties from which warranted cases have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total admittance.			Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
Algoma District				3	2	5	5
Brant				6	7	13	13
Bruce				3	5	8	8
Carleton				166	125	291	291
Dufferin							
Elgin				3	4	7	7
Essex				3	2	5	5
Frontenac	4	1	5	145	98	243	248
Grey				7	9	16	16
Haldimand				6	6	12	12
Halton				2	1	3	3
Hastings	6	2	8	96	51	147	155
Huron				6	5	11	11
Kent				2		2	2
Lambton				12	2	14	14
Lanark				97	87	184	184
Leeds and Grenville				78	57	135	135
Lennox and Addington				83	41	124	124
Lincoln				9	5	14	14
Middlesex				6	4	10	10
Muskoka District					1	1	1
Norfolk				7	5	12	12
Northumberland and Durham	2	1	3	45	50	95	98
Ontario				18	22	40	40
Oxford				14	3	17	17
Peel				4	1	5	5
Perth				10	9	19	19
Peterborough				8	8	16	16
Prescott and Russell				41	24	65	65
Prince Edward				25	15	40	40
Renfrew	1		1	48	20	68	69
Simcoe				12	11	23	24
Stormont, Dundas and Glengarry				111	73	184	184
Victoria				5	2	17	17
Waterloo				11	4	15	15
Welland		1	1	6	4	10	11
Wellington				4	4	8	8
Wentworth				13	12	25	25
York				33	50	83	83
Not classed				27	7	34	34
Total admissions	13	5	18	1,175	846	2,021	2,039

TABLE No. 5.

Shewing the length of residence in the Asylum of those discharged during the year.

No.	Initials.	Sex.	When admitted.	When discharged.	Remarks.
1	F. C	M	April 1, 1901	Oct. 2, 1901	Recovered.
2	M. C. L.	M	Sept. 24, "	" 15, "	Improved.
3	M. A. L.	F	April 30, "	Nov. 6, "	Recovered.
4	T. M. D	M	June 18, "	" 14, "	"
5	M. G	F	Aug. 17, 1900	" 14, "	"
6	C. E. M.	F	June 2, 1899	" 15, "	"
7	M. S.	M	Aug. 5, 1901	Dec. 4, "	"
8	J. J.	M	May 28, "	" 4, "	Improved.
9	M. H. T	F	Aug. 20, "	" 5, "	Recovered.
10	B. J. K	F	Oct. 3 "	" 23, "	"
11	O. G	F	July 4, 1898	" 26, "	Improved.
12	C. J	F	Jan. 12, 1901	" 26, "	"
13	J. C. C.	M	April 18, "	" 28, "	Recovered.
14	M. E. H	F	June 7, 1899	" 28, "	Improved.
15	A. H.	F	Nov. 11, 1901	" 30, "	Unimproved.
16	A. T. O.	F	Sept. 21, "	Jan. 3, 1902	Recovered.
17	M. K	M	July 24, "	" 15, "	"
18	K. B	F	Aug. 22, "	" 22, "	"
19	C. E. J	M	Feb. 19, "	" 22, "	Improved.
20	R. G	M	Oct. 11, "	" 24, "	Recovered.
21	M. L.	F	" 2, "	Feb. 3, "	"
22	B. C	M	Nov. 26, 1877	" 15, "	Improved.
23	T. O	M	Sept. 16, 1901	Mar. 5, "	"
24	E. F	F	Oct. 24, 1899	" 8, "	Recovered.
25	E. B	F	April 29, 1897	" 12, "	Improved.
26	N. B.	F	May 8, 1883	" 22, "	"
27	E. C	F	Oct. 21, 1901	April 10, "	"
28	C. M	F	April 28, 1886	" 10, "	"
29	B. M. F.	F	Feb. 13, 1899	" 26, "	"
30	L. C	F	Jan. 2, 1902	" 28, "	Recovered.
31	R. M	M	Feb. 24, "	May 7, "	"
32	C. S. K	F	Mar. 10, "	" 27, "	"
33	M. W.	F	May 13, "	July 9, "	"
34	J. G	F	Feb. 10, "	" 11, "	"
35	P. I.	M	Nov. 30, 1901	" 21, "	"
36	E. R. W	F	Feb. 15, 1899	" 22, "	Improved.
37	H K	M	Feb. 28, 1902	" 28, "	Unimproved.
38	M. L	F	April 23, "	" 31, "	"
39	L. C	F	May 3, "	Aug. 8, "	Recovered.
40	A. C	M	Sept. 17, 1901	" 19, "	"
41	E. M.	F	Sept. 10, 1900	" 23, "	Unimproved.
42	F. M.	M	Oct. 26, 1901	Sept. 1, "	Recovered.
43	A. M. E	F	April 11, 1902	" 18, "	Unimproved.
44	M. B	F	June 30, "	" 30, "	Recovered.
45	E. D. M	F	Mar. 12, "	" 30, "	"
46	W. L	M	Feb. 17, "	" 30, "	"
47	M. T.	M	Feb. 24, "	" 30, "	"
48	E. H. F.	F	Jan. 14, 1901	" 30, "	"

TABLE No. 6.

Shewing age, length of residence, and proximate cause of death of those who died during the year ending 30th September, 1902.

No.	Initials.	Sex.	Age.	Date of death.	Residence in Asylum.			Proximate cause of death.
					Years.	Months.	Days.	
1	H. E. G...	F...	78	Oct. 8, 1901	.	5	13	Senility.
2	E. M.....	F...	53	" 13, "	11	6	21	Volvulus.
3	J. L	M ..	81	" 18, "	1	4	16	Senility.
4	F. P	M ..	35	" 18, "	1	..	9	Gen. paresis.
5	M. D.....	F...	56	" 23, "	..	2	24	Carcinoma of bladder.
6	J. C... ..	M ..	41	" 29, " ...	3	2	29	Epilepsy.
7	M. F	F...	91	Nov. 6, "	29	8	25	Asthma.
8	W. D. B ..	M ..	45	" 12, " ...	.....	.....	22	Gen. paresis.
9	M. C	F..	36	" 27, "	9	.....	4	Phthisis.
10	S. O	F...	35	Dec. 12, "	1	1	12	Pneumonia.
11	M. A. W..	F...	57	" 16, "	12	6	10	Adeno-sarcoma.
12	W. D	M ..	38	" 23, " ...	.....	5	7	Gen. paresis.
13	J. S.....	F...	41	" 29, "	1	1	13	Cerebral softening.
14	T. L	M ..	67	Jan. 3, 1902	32	8	22	Carcinoma of liver.
15	G. M	M ..	33	" 8, "	12	1	7	Mitral disease.
16	T. C	M ..	82	" 10, "	....	6	1	Erysipelas.
17	H. D	F...	33	" 24, " ...	3	5	15	Pernicious anæmia.
18	D. C	M ..	67	Feb. 1, "	24	4	18	Cardiac disease.
19	B. R	F...	43	" 6, "	7	.....	20	Phthisis.
20	E. C.....	F...	33	" 9, "	11	6	.....	"
21	A. O.....	M ..	68	" 25, "	6	11	19	Senility.
22	C. Y.....	F...	74	" 27, "	.....	.....	24	"
23	S. P. C...	F...	28	Mar. 3, "	.....	9	9	Inanition.
24	E. M . .	F...	46	" 28, "	12	1	15	Diarrhœa.
25	M. G.....	F...	42	" 31, "	12	4	18	Phthisis.
26	D. M	M .	62	" 31, " ...	5	3	14	Enteric fever.
27	C. O	F...	29	April 5, "	4	3	5	Phthisis.
28	M. J.....	F...	21	" 9, "	1	2	18	Tuberculosis.
29	C. F	F...	77	May 1, "	6	6	3	Cardiac disease.
30	S. L. L ...	F...	86	" 17, "	.....	10	28	Senility.
31	B. E.....	F...	24	" 21, "	.....	8	9	Strangulation.
32	R D.....	M ..	66	" 23, "	15	2	2	Senility.
33	M. C. B...	F...	62	" 23, "		9	29	Phthisis.
34	E. S	F...	76	" 31, "	18	7	7	Senility.
35	M. K	F...	77	June 4, "	....	6	19	Cerebral hæmorrhage.
36	S. S.....	F...	63	" 9, "	22	7	17	Epilepsy.
37	W. B.....	M ..	73	" 16, "	3	1	27	Senility.
38	A. S	F...	68	" 21, "	5	6	20	"
39	S. S. P....	F...	81	" 26, "	5	3	8	"
40	R. L.....	M ..	45	July 2, "	20	6	10	Epilepsy.
41	A. Q.....	F...	80	" 25, "	15	5	9	"
42	B. C	F...	75	Aug. 1, "	20	.....	6	Tuberculosis.
43	S. W	M ..	43	" 11, "	1	..	10	Epilepsy.
44	A. M. A ..	F...	52	" 28, "	....	7	5	Gen. paresis.
45	C. A. I...	F...	48	Sept. 15, "	....	9	24	Tuberculosis.
46	W. C	M ..	50	" 18, "	.....	....	3	Exhaustion.
47	M. A. W..	F...	44	" 20, " . ..	.....	4	21	Phthisis.

TABLE No. 7.

Shewing Trades, Callings and Occupations of Patients admitted into the Asylum.

Trades, callings and occupations.	During the year.			During former years.			Total
	Males	Females	Total	Males	Females	Total	
Agents				9		9	9
Architects				1		1	1
Actuaries							
Actors							
Artists							
Book keepers				4		4	4
Bakers				10		10	10
Bricklayers				4		4	4
Butchers				3		3	3
Blacksmiths				30		30	30
Brass finishers				1		1	1
Brewers	1		1	1		1	2
Builders							
Barbers				3		3	3
Broom-makers				2		2	2
Barristers				4		4	4
Bookbinders							
Brickmakers							
Bridge-tenders							
Brakesmen							
Commercial travellers				10		10	10
Cabinet-makers							
Consuls							
Confectioners							
Coopers				6		6	6
Carpenters				80		80	80
Clerks	2		2	41		41	43
Clergymen				11		11	11
Carriage-makers				9		9	
Cooks				2	5	7	
Carders				3		3	
Captains of steamboats				3		3	
Cigarmakers				1		1	
Custom-house officers				2		2	
Coppersmiths							
Coachmen				2		2	
Civil servants							
Clock cleaners							
Carters				5		5	
Dyers							
Domestic servants, all kinds		3	3	17	396	413	416
Dressmakers		4	4		41	41	45
Detectives				1		1	1
Druggists				5		5	5
Dentists				1		1	1
Doctors							
Engineers	1		1	13		13	14
Editors							
Engravers							
Farmers	10		10	567	4	571	581
Fishermen				2		2	2
Founders							
Ferrymen							
Furriers		1	1				1
Gardeners				3		3	3
Grocers				2		2	2
Glass-blowers							
Gentlemen				3		3	3
Glove-makers							
Grooms				1		1	1
Gun-smiths				1		1	1
Hucksters							
Hatters				2		2	2
Hostlers							
Hunters				1		1	1
Harness-makers	1		1	9		9	10
Housekeepers		39	39		653	653	692
Hack-drivers				5		5	5

TABLE No. 7.—*Continued.*

Shewing Trades, Callings and Occupations of Patients admitted into the Asylum.

Trades, callings and occupations.	During the year.			During former years.			Total
	Males	Females	Total	Males	Females	Total	
Inn-keepers				5		5	5
Jewellers				2		2	2
Janitors				2		2	2
Labourers	17		17	532		532	549
Laundresses							
Ladies					17	17	17
Lawyers							
Lumbermen				11		11	11
Milliners					4	4	4
Masons				6		6	6
Machinists				13		13	13
Matchmakers				1		1	1
Millers				3		3	3
Moulders				3		3	3
Merchants				25		25	25
Mechanics				3		3	3
Music-teachers					4	4	4
Marble-cutters							
No occupation	3	4	7	44	118	162	169
Night-watchmen							
Nurses		2	2		5	5	7
Not stated				126	180	306	306
Organ-builders							
Other occupations	3	1	4	39	28	67	71
Professors of music							
Plasterers				3		3	3
Pensioners							
Prostitutes					1	1	1
Painters	1		1	17		17	18
Printers				9		9	9
Peddlers				3		3	3
Physicians	1		1	13		13	14
Pump-makers				2		2	2
Railway foremen				1		1	1
" conductors				1		1	1
Spinsters					39	39	39
Sailors	2		2	20		20	22
Students				14	4	18	18
Spinners					2	2	2
Sisters of Charity							
Soda-water manufacturers							
Stone-cutters				2		2	2
Showmen							
Saddlers	1		1				1
Shoemakers				48		48	48
Seamstresses					58	58	58
Soap-makers							
Soldiers				2		2	2
Salesmen				11		11	11
Surveyors							
Sail and tent-makers	1		1				1
Shopkeepers							
Teachers		1	1	15	34	49	50
Tinsmiths				8		8	8
Tavern-keepers	1		1	17		17	18
Tailors				5	2	7	7
Tanners							
Teamsters				1		1	1
Toll-gate keepers							
Watchmakers				1		1	1
Wood-workers							
Weavers				4		4	4
Wheelwrights							
Waggon-makers				1		1	1
Unknown or other employments				14	8	22	22
Total	45	55	100	1,907	1,603	3,510	3,610

TABLE No. 8.

Shewing causes of Insanity.

Causes of Insanity. In respect of the admissions for the year ending 30th September, 1902.	No. of instances in which each cause was assigned.					
	As predisposing cause.			As exciting cause.		
	Male.	Female.	Total.	Male.	Female.	Total.
Moral.						
Domestic troubles, including loss of relatives or friends	1	1	2	1	7	8
Religious excitement					1	1
Adverse circumstances, including business troubles	1		1	2	3	5
Love affairs, including seduction					1	1
Mental anxiety, "worry"				1	3	4
Fright and nervous shocks				3		3
Physical.						
Intemperance in drink or drugs	3		3	5		5
Intemperance, sexual						
Venereal disease		3	3	5	3	8
Self-abuse, sexual						
Over-work					3	3
Sunstroke	1		1			
Accident or injury				2	1	3
Pregnancy					1	1
Puerperal		2	2		2	2
Lactation						
Puberty and change of life		2	2		2	2
Uterine disorders					1	1
Brain disease, with general paralysis	5		5	1	1	2
Brain disease, with epilepsy	2	1	3	2	1	3
Other forms of brain disease	2		2	1		1
Other bodily diseases or disorders, including old age	2	8	10	2	5	7
Fevers					1	1
Hereditary.						
With other ascertained cause in combination	1	7	8			
With other combined cause not ascertained	1	5	6	2	3	5
Congenital.						
With other ascertained cause in combination						
With other combined cause not ascertained	4		4	4		4
Unknown	22	26	48	14	16	30
Total	45	55	100	45	55	100

TABLE No. 9.

Shewing the probational discharges and the result thereof.

No.	Sex.	Initials.	Date of probational discharge.	Term of probation.	Result.
1	M	F. H.	October 1, 1901	3 months	Returned.
2	F	M. H. T	" 5, "	3 "	Discharged, recovered.
3	F	C. J.	" 7, "	3 "	" improved.
4	F	C. M.	" 9, "	6 "	" "
5	F	O. G.	" 16, "	2 "	" "
6	F	M. H.	" 19, "	2 "	" "
7	M	J. C. C	" 24, "	2 "	" recovered.
8	F	M. M	" 25, "	6 "	Returned.
9	F	B. M. F	" 25, "	3 "	Discharged, improved.
10	F	M. A. L	" 30, "	2 "	" recovered.
11	F	A. T. O	" 31, "	2 "	" "
12	M	R. G.	November 2, "	2 "	" "
13	M	H. R	November 11, "	2 "	Returned.
14	F	K. B.	" 20, "	2 "	Discharged, recovered.
15	F	M. L	December 3, "	1 month	" "
16	M	M. K.	" 5, "	1 "	" "

TABLE No. 9.—*Continued.*

Shewing the probational discharges and the result thereof.

No.	Sex.	Initials.	Date of probational discharge.	Term of probation.	Result.
17	F	M. W	December 16, 1901	2 months	Returned, improved.
18	M	A. W	" 23, "	2 "	Returned.
19	F	L. C	" 31, "	1 month	"
20	F	M. L	January 9, 1902	1 "	"
21	F	M. E. T	" 17, "	2 months	Discharged, improved.
22	F	M. S. W	February 4, "	2 "	Returned.
23	F	H. M	" 27, "	2 "	Discharged, recovered.
24	F	N. P	March 1, "	4 "	" "
25	F	E. M	" 13, "	3 "	Returned.
26	F	S. S	" 31, "	4 "	Discharged, recovered.
27	F	M. E. P	" 31, "	6 "	
28	F	H. M. G	April 15, "	6 "	
29	M	E. F. T	" 24, "	1 month	Discharged, recovered.
30	M	J. H	May 8, "	2 months	" "
31	F	A. M. E	" 15, "	5 "	
32	F	E. C	January 17, "	3 "	Discharged, improved.
33	F	S. S	February 4, "	2 "	Returned.
34	F	L. C	" 27, "	3 "	Recovered.
35	M	F. M	March 1, "	6 "	"
36	M	F. G	" 13, "	3 "	Returned.
37	M	R. M	" 31, "	6 "	Recovered.
38	M	M. T	" 31, "	3 "	"
39	M	W. L	April 15, "	3 "	"
40	M	P. I	" 24, "	3 "	"
41	F	J. G	May 8, "	2 "	"
42	M	A. C	" 15, "	4 "	"
43	F	J. M. T	" 15, "	4 "	Returned.
44	F	M. W	June 5, "	1 month	Recovered.
45	M	A. W	" 6, "	1 "	Returned.
46	F	L. C	" 7, "	2 months	Recovered.
47	F	M. L	" 23, "	1 "	Unimproved.
48	F	M. E. T	July 2, "	3 months	Still out.
49	F	M. S. W	" 11, "	3 "	"
50	F	H. M	" 11, "	2 "	Returned.
51	F	N. P	" 11, "	3 "	Still out.
52	F	E. D. M	" 12, "	2 "	Recovered.
53	F	S. S	" 14, "	3 "	Still out.
54	F	M. E. P	" 15, "	2 "	Returned.
55	F	H. M. G	" 17, "	3 "	Still out.
56	M	E. F. T	" 20, "	3 "	"
57	M	J. H	August 7, "	1 month	Returned.
58	F	A. M. E	" 9, "	1 "	Unimproved.
59	F	M. B	" 14, "	1 "	Recovered.
60	M	R. G	" 30, "	2 months	Still out.
61	M	C. H	September 1, "	1 month	Returned.
62	F	R. C	" 4, "	2 months	Still out.
63	F	E. H. F	" 9, "	2 "	Recovered.
64	M	W. C	" 10, "	2 "	Still out.
65	F	S. G	" 23, "	2 "	"
66	M	J. H	" 29, "	2 "	"
67	F	M. C	" 30, "	2 "	"

SUMMARY OF PROBATIONAL DISCHARGES.

	Males.	Females	Total.	Males.	Females	Total.
Number to whom probational leave was granted				28	39	67
Discharged, recovered	15	16	31			
" improved	1	6	7			
" unimproved		2	2			
Died before expiration of leave						
Returned to Asylum	8	7	15			
Absent on probation on 30th September, 1902	4	8	12	28	39	67

TABLE No. 10.

Shewing in quinquennial period, the ages of those admitted, recovered and died during the year.

Ages.	Admitted.			Discharged.			Died.		
	Males.	Females	Total.	Males.	Females	Total.	Males.	Females	Total.
From 10 to 15 years ..	.....	.....	.....	.....	.....	.....	.....	.....	.....
" 15 " 20 " ..	3	.....	3	.....	2	2	.....	.....	.....
" 20 " 25 " ..	6	10	16	3	4	7	.....	2	2
" 25 " 30 " ..	8	4	12	4	3	7	.....	2	2
" 30 " 35 " ..	3	4	7	1	4	5	1	2	3
" 35 " 40 " ..	3	7	10	1	4	3	2	2	4
" 40 " 45 " ..	4	5	9	3	1	4	3	4	7
" 45 " 50 " ..	5	9	14	1	4	5	1	2	3
" 50 " 55 " ..	6	7	13	1	3	4	1	2	3
" 55 " 60 " ..	3	1	4	2	2	4	.....	2	2
" 60 " 65 " ..	2	2	4	.....	2	2	2	1	3
" 65 " 70 " ..	1	.....	1	1	1	2	4	1	5
" 70 " 75 " ..	.....	4	4	.....	.....	.....	1	2	3
" 75 " 80 " ..	.....	1	1	1	.....	1	.....	5	5
" 80 " 85 " ..	.....	1	1	.....	.....	.....	2	1	3
" 85 " 90 " ..	1	.....	1	.....	.....	.....	.....	1	1
" 90 " 95 " ..	.....	.....	.....	.....	.....	.....	.....	1	1
Unknown	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	45	55	100	18	30	48	17	30	47

TABLE No. 11.

Periods.	Duration of insanity prior to admission.	Length of residence of those remaining in Asylum on 30th September.	Periods of treatment of those who were discharged cured during the year.	Periods of treatment of those who were discharged improved during the year.	Periods of treatment of those who were discharged unimproved during the year.
Under 1 month.....	26	8	.....	1	1
From 1 to 2 months ..	8	8	1	.....	.....
" 2 " 3 "	5	9	5	.....	.....
" 3 " 4 "	4	7	6	.....	1
" 4 " 5 "	1	5	4	1	.....
" 5 " 6 "	.....	5	1	1	2
" 6 " 7 "	5	7	5	1	.....
" 7 " 8 "	1	10	.....	.....	.....
" 8 " 9 "	1	3	1	.....	.....
" 9 " 10 "	.....	3	.....	.....	.....
" 10 " 11 "	1	4	1	.....	.....
" 11 " 12 "	4	2	1	2	.....
" 12 " 18 "	7	30	1	.....	1
" 18 months to 2 years.....	.....	17	1	.....	.....
" 2 " 3 years.....	6	23	2	2	.....
" 3 " 4 "	2	39	.....	2	.....
" 4 " 5 "	1	31	.....	1	.....
" 5 " 6 "	2	19	.....	.....	.....
" 6 " 7 "	1	17	.....	.....	.....
" 7 " 8 "	1	47	.....	.....	.....
" 8 " 9 "	.....	19	.....	.....	.....
" 9 " 10 "	3	30	.....	.....	.....
" 10 " 15 "	3	96	.....	.....	.....
" 15 " 20 "	3	75	.....	2	.....
" 20 yrs. and upwards.....	13	75	.....	1	.....
Totals.....	100	589	29	14	5

TABLE No. 12.

Shewing the nature of the employment and the number of day's work performed by patients during the year.

Nature of employment.	No. of patients who worked.	Days worked.		
		Male.	Female.	Total.
Carpenter's shop	15	3,060		3,060
Tailor's shop	5	1,080		1,080
Shoe shop	6	1,248		1,248
Engineer's shop	8	2,039		2,039
Blacksmith's shop	2	530		530
Mason work	14	3,600		3,600
Repairing roads	3	840		840
Wood yard and coal shed	4	1,040		1,040
Bakery	4	920		920
Laundry	28	1,095	6,409	7,504
Dairy	12	3,060		3,060
Butcher's shop and slaughter house	6	1,640		1,640
Piggery	3	760		760
Painting	8	1,850		1,850
Farm	17	4,289		4,289
Garden	10	1,526		1,526
Grounds	6	1,420		1,420
Stable	8	1,860		1,860
Kitchen	16	1,983	2,686	4,669
Dining rooms	40	5,105	6,998	12,103
Officers' quarters	10		2,545	2,545
Sewing rooms	39		11,061	11,061
Knitting	34		9,377	9,377
Mending	18		5,194	5,194
Wards				
Halls	157	34,773	12,464	47,237
Storeroom	2	540		540
General	50	1,470	8,194	9,664
Total	525	75,728	64,928	140,656

TABLE No. 13.

Shewing the Counties and Districts from which the patients remaining in residence 30th September, 1902, were originally received.

Counties and Districts.	Males.	Females	Total.
Carleton	42	22	64
Dundas	6	7	13
Durham	10	5	15
Essex	1		1
Frontenac	54	73	127
Glengarry	10	6	16
Grenville	2	2	4
Grey	1		1
Hastings	49	20	69
Lanark	18	16	34
Leeds	10	9	19
Lennox and Addington	29	21	50
Middlesex	1		1
Muskoka District		1	1
Norfolk	1		1
Northumberland	14	24	38
Ontario		1	1
Oxford	1		1
Peterborough	2	1	3
Prescott	3	3	6
Prince Edward	13	13	26
Renfrew	27	26	53
Russell		2	2
Simcoe	1		1
Stormont	9	6	15
Thunder Bay District	1		1
Victoria	2		2
Waterloo	1		1
Welland		1	1
Wellington	1		1
Wentworth	1	2	3
York	5	7	12
Not classed	4	2	6
Total	319	270	589

TABLE No. 14.

Patients Transferred to other Asylums.

	Initials of persons transferred.	Age.	Female.	County originally admitted from.	Nationality.			Religious Denomination.					Social State		Duration of insanity prior to admission.		Admitted by		Occupation.	Asylum transferred to
					Canadian.	English.	Irish.	Church of England.	Roman Catholic.	Presbyterian.	Methodist.	Other denominations.	Married or widowed.	Unmarried.	Years.	Months.	Warrant.	Certificate.		
1	F.B	54	1	Montreal		1						1		1	26			1	Home duties	Cobourg.
2	S.M.C.	47	2	Durham	1						1		1			8		2	do	"
3	M.C.	41	3	Northumberland	2					1				2			1		Domestic.	"
4	P.M.	37	4	Hastings	3				1					3		1		3	Teacher	"
5	M.D.	36	5	do	1	2			2					4	6			4	None	"
6	A.G.	42	6	Glengarry	4				3					5	1			5	Servant	"
7	M.J.J.	61	7	Stormont			1	1						6		6		6	do	"
8	F.J.R	22	8	Northumberland	5					2				7		1		7	None	"
9	B.U.R.	60	9	Peterboro'	6						2			8	3			8	do	"
10	B.S	46	10	Renfrew	7				4					9	10			9	Servant	"
11	M.E.S.	37	11	Northumberland	8						3		2		4		2		Home duties	"
12	M.F.	24	12	Lennox	9						4			10	15		3		Servant	"

TABLE No. 15.

Shewing number of Articles made and repaired in the Wards during the year ending 30th September, 1902.

Articles.	Made.	Repaired.	Articles.	Made.	Repaired.
Articles marked	3,087	.....	Drapes, table	4	.....
Aprons, uniform	150	.....	do bracket	6	.....
do patients'	474	986	Knitted, lace yds.	150	....
Blankets	.....	330	Kerchiefs	113	.....
Bedticks	96	181	Lambrequins	6	.....
Blouse waists	3	30	Mats, floor	....	96
Balls, carpet rags	50	.	Mattresses	156	493
Bonnets, sun	12	26	do ticks	22	18
Crochet, lace yds	260	....	Neckties	491	.....
Curtains sets	79	60	Pillows	67	.....
Chemises	205	1,174	do cases	716	467
Collars	750	.....	do ticks	43	19
Caps, nurses'	80	..	do shams	75	30
Covers, cushion	84	....	Petticoats	180	288
do bureau	9	.....	Stockings pr.	.....	989
do stand	14	....	Socks "	338	1,840
do sick board	10	....	Sheets	573	1,417
do tray	14	....	Shirts, cotton	291	1,648
Counterpanes	.....	134	do flannel	174	687
Cushions, window seat	18	....	Shrouds	26	.....
do sofa	100	.....	Screens	6	.....
do pin	3	....	Towels	125	194
Dresses	230	1,000	Tea cozies	3	...
do night	93	197	Table cloths	227	150
do uniform	59	....	do covers	80	.....
Doylies	52	..	do napkins	63	.....
Drawers, flannel pr.	14	426	do cloths, embroidered	20	.....
do cotton "	238	....	Window blinds	88	32
Drapes, mantel	16	....			

TABLE No. 16.

Showing number of articles made and repaired in the tailor shop and shoe shop during the year ending 30th September, 1902.

Articles.	Made.	Repaired.	Articles.	Made.	Repaired.
Coats, uniform	18	.....	Boots, long pair	7	27
" patients	197	524	" Coburgs "	42	116
Drawers, " pair	.	336	" women's "	1	40
Overalls, " "	21	..	Blankets, strong	5	....
Pants, uniform "	18	.....	Harness	....	10
" patients "	310	920	Slippers, leather pair	228	27
Smocks	6	.....	" canvas "	38	.....
Vests	61	174	Straps, leather	30	.....

TABLE No. 17.

Number of articles made and repaired in the blacksmith shop.

Articles.	Made.	Repaired.	Articles.	Made.	Repaired.
Boilers, tin, ironed	10	15	Monkey wrenches		4
Bread cutters		4	Neck yokes	3	2
Bedsteads, iron		22	Nuts and washers	180	
Bolts—3 in. to 50 ft	220		Pipe hangers	30	
Band saws brazed	12		Plough points sharpened	38	4
Braces	44		Points for mason	60	84
Butts, large pair	16		Spades and shovels		48
Boring iron plates	45		Stone hammers and wedges	3	34
Carts		4	Straps and stays	16	
Closet seats		8	Spuds and studs, iron	16	
Coulters	1	3	Spikes, large, "	70	
Clamps, iron	24		Screws sets	3	
Chisels, masons	44	120	Sinks, iron		4
" cold	15	30	Sleigh bobs, ironed pair	1	2
Drills	16		Tongs, large "	3	8
Field mowers		3	Ward and cupboard keys	40	90
Grate wrenches	2	4	Wire mattresses		148
" hoes	3		Wheelbarrows		8
Harrows		4	Waggons		12
Horse rakes		3	" phaeton and gladstone		4
Hinges, large strap pair	6		" tongues	2	4
Ice sleighs		4	Whiffletrees set	3	8
" hooks	10	4	Welding long shanks	40	

TABLE No. 18.

Showing number of articles made and repaired in the carpenter's shop during the year ending 30th September, 1902.

Articles.	Made.	Repaired.	Articles.	Made.	Repaired.
Awning for cottage	1		Closet seats	20	4
Band saws braized	15		" tops	6	
Base boards feet		220	Coffins	32	
Benches	1	23	Cover, fountain	1	
Beam supporting tank	1		" butcher's waggon	1	
Boathouse	1		" well	1	
Book cases	2	1	Curtain poles	9	
Boxes	23		" roller for stage	1	
" for pipes feet	26		Cupboards	4	1
Brackets	1		Cottage, convalescent	1	
Bread cutters		6	Coal boxes	2	
Brushes	1,698		Doors	11	28
Buggies		2	" frames		2
Bureaus	1		Double bases		4
Bath tub stand	1		Drawers	3	2
" wheels	4		" knobs	8	
Carts		4	Dumb waiters		5
Castors put on sets	4		Dust shaft		1
Ceilings	1		Easel	1	
" furred feet	300		Fanlights		2
" iron ornamental	1		Fences feet		50
" centres	2		Floors	26	4
Chairs		204	Gates	2	1
" upholstered	4		" posts	2	
" re-caned	4		Grilles	4	
Circles for pipes	60		Grain spout	1	

TABLE No. 18.—*Concluded.*

Articles.	Made.	Repaired.	Articles.	Made.	Repaired.
Handles, chisel	13	....	Settees	.....	13
" hammer	6	..	" re-caned	1	.....
" mop	30	..	Sofas	.....	7
" scrubber	86	65	" upholstered	59	.....
Harness rack	1	...	Shelves	6	2
Ice saws sharpened	6	.....	Sink frames	3	2
" sleigh	1	....	Sleigh tongues	2	.....
" scrapers	...	2	Snow shovels	1	.....
Ladders	1	.....	Staging in greenhouse ..... feet	150	.....
" step	2	5	Stage properties	6	.....
Lawn markers	.....	2	Straight edges	3	.....
Laundry trucks	.....	3	Steps	.....	1
Locks put on	9	.....	Tables	3	27
Lumber dressed ..... feet	21,000	.....	Tents	2	.....
Mortar board	1	....	" poles	62	.....
" box	1	.....	Templates	2	.....
Ottoman upholstered	1	.....	Towel racks	1	.....
Partition taken down	1	.....	Trestles	2	.....
Picture frames	11	....	Trunks	.....	2
" moulding put up ..... feet	900	..	Trap doors	5	...
Pig pens	8	.....	Waggons	....	2
Peels	4	2	" tongues	2	.....
Ping-pong rachets ..... sets	5	.....	Wardrobes	.....	7
" tables and trestles	5	.....	Wash-tands	1	14
Platforms	2	...	Wheelbarrows	.....	6
Roofs shingled	2	.....	Window sills	2	.....
Refrigerators	...	1	" stops	24	.....
Sashes	8	5	Wood trays	2	.....
Steam pipes covered ..... feet	1,000	...	Whiffle-trees	2	....
Steel mangers fitted	10	..	Work benches	1	....
Seed drills	1	1	Walks laid down	5	.....

Ward floors taken up and re-laid for electric wires.

TABLE No. 19.

Showing work performed in the mason's department during the year ending 30th September, 1902.

Main Building:	
Wards 5 and 7	Plastered in sundry places.
" 4, 6 and 8	Drilled holes for electric light wires.
" 2, 4, 6, 8 and 9	Mortar and cement plastering in sundry places.
" 9	Put down cement floors in bath room and water closet.
" 4	Cement plastering of bath room walls and twelve bedrooms.
" 2	Cement floor about sink in dining room.
" 3	Broke away brick wall for passage of steam pipe.
" 9	Broke away stone wall for passage of steam pipe.
Summer cottage	Built stone foundation.
Boiler house	Drilled stone walls changing the course of chain. Rebuilt arch, repaired boiler and other repairs with asbestos mortar. Broke away stone walls for steam pipe.
Root cellar	Pointed with cement mortar window areas.
Greenhouse	Put up extension to furnace chimney. Pointed and repaired stone walls with cement mortar.
Stables	Pointed stone walls with cement mortar. Broke away brick walls for partitions. Drilled thirty-six holes for irons and manger bolts. Drilled holes for and built in iron rods.
New court	Cleaned furnace and kitchen flues. Replaced fire-brick in kitchen range. Repaired brick work in furnace of cow stables.
Sewerage house	Took down brick walls and rebuilt with stone at drain entrance, plastering with cement mortar
Tailor shop	Built brick foundation for heating stove.
South cottage	Took down and rebuilt two flights of stone steps on lawn Repaired brick work of furnace and ash pit with concrete and cement, and repaired plaster of two rooms.
Farm house	Re-plastered with mortar. Repaired brick and stone foundation.
Chief Attendant's house	Pointed stone foundation with cement. Built in perforated iron plate on mouth of cellar drain.
Carpenter's house	Plastered sundry places in rooms, and pointed roof valley with cement.

TABLE No. 20.

Shewing amount of Painting and Glazing performed during the year ending 30th Sept., 1902.

Locality.	Painting done.	Yards.
Medical Superintendent's office	All the woodwork, doors, window frames, bases, etc.	100
Assistant Superintendent.	Two bedrooms painted and varnished	150
Steward	Sitting-room ceiling painted and varnished	30
Engine-room	Ceiling and walls, kitchen doors and base, pantry and bakery and closets in basement	330
No. 2 Ward	Woodwork of three bedrooms, octagon, wash-room and water closets	450
" 4 "	" eight bedrooms, dining-room, wash-room and closets, dormitory floors oiled and shellacked	640 320
" 5 "	Woodwork throughout the ward	360
" 8 "	" sitting-room, hall, dormitories and two floors	790
" 9 "	" sitting-room, dining-room, ten bedrooms, long hall, bath-room and closets, walls and ceilings	950
S. Cottage	Woodwork of two dining-rooms, four stairways, walls and ceilings, four rooms, bathroom and ten baths	1,200
"		
New court	Woodwork of and walls, dining-room, kitchen, small hall, bathroom, six rooms and long hall	640
Summer cottage	Painted outside, four doors and windows and verandah, inside wood-work oiled and shellacked	150
Chief attendent	Woodwork of parlor, dining-room, hall, bases and walls, board walk and steps	320
Engineer	Woodwork of dining-room, kitchen, two floors, front door and steps, four sets Venetian shutters	260
Gardener	Two floors, two doors, porch and board walk	50
Carpenter	Woodwork of parlor, dining-room, kitchen, hall, two doors and walk	250
Drive house	Roof	300
Boat houses	Three roofs, sides and ends	250
	Varnished 115 chairs, 28 settees, 7 tables, 4 wardrobes, 4 washstands, 3 bookcases, 45 radiators, 1,600 feet steampipe, 1 buggy.	
	Glass set	2,200

TABLE No. 21.

Shewing returns from Farm and Garden for the year ending 30th Sept., 1902.

Quantity.	Articles.	Rate.	$ c.
430 bunches	asparagus @	$0 05	21 50
959 "	green onions @	4	38 24
2,765 "	lettuce @	3	82 95
540 "	radishes @	3	16 20
12,000 "	rhubarb @	1	120 00
360 "	sage and parsley @	4	14 40
200 "	summer savory @	5	10 00
110 pecks	beans @	20	22 00
120 "	peas in pod @	25	30 00
1,350 heads	cauliflower @	3	40 50
2,500 "	cabbage @	3	75 00
1,950 "	celery @	3	58 50
173 dozen	cucumbers @	10	17 30
8 "	citrons @	60	4 80
2 "	pumpkins @	1 00	2 00
6 "	squash @	60	3 60
1,878 "	sweet corn @	5	93 90
320 bush.	apples @	50	160 00
112 "	beets @	25	28 00
100 "	barley @	45	45 00
5 "	cucumbers @	1 00	5 00
136 "	carrots @	20	27 20
200 "	onions @	80	160 00
834 "	potatoes @	50	417 00
600 "	oats @	30	180 00
84 "	parsnips @	40	33 60
60 "	spinach @	25	15 00
10 "	salsify @	75	7 50
200 bush.	speltz @	45	90 00
88 "	tomatoes @	50	44 00
157 "	turnips @	20	31 40
1,390 quarts	currants @	5	69 50
50 "	gooseberries @	5	2 50
350 "	raspberries @	5	27 50
2,400 "	strawberries @	5	120 00
250 lbs.	hothouse grapes @	5	12 50
21 tons	carrots @	6 70	140 70
91½ "	grass for cattle @	5 00	457 50
125 "	hay @	6 00	750 00
28½ "	mangolds @	7 50	213 75
30 "	straw @	4 00	120 00
75 "	silo corn ensilage @	5 00	375 00
24,098 gals.	milk @	20	4,819 60
2,210 lbs.	pork @	....	132 60
110 "	wool @	6	6 60
13 each	lambs killed @	3 50	45 50
158 "	young pigs sold @	....	414 90
Lot old iron			8 80
" bones			9 86
" rags			35 72
5,000 bedding plants			.....
780 greenhouse plants			.....
8,000 annuals			.....
	Total		$9,657 11

TABLE No. 22.

KINGSTON ASYLUM.—Farm Exchange account for the year ending 30th September, 1902.

1900.	Disbursements.	$ c.
Oct. 19.	To Cash paid Elliott Bros., 60 ft. gutten covering	20 40
" 19.	" " 10 sett manger and hay racks, at $12.25	122 50
" 21.	" Jas. Laturney, repairs to buggy	35 00
" 21.	" W. A. McGill, V S., attendance and medicine	21 50
" 29.	" Thos. Hilton, harness repairs	13 40
Dec. 11.	" Geo. Ford, threshing 1,340 bush. oats, at 2½c	34 75
" 11.	" " use of binder	10 00
" 31.	To balance	725 69
		983 24
1902.		
Jan. 7.	To cash paid "A" Battery, manure acct. 1901	60 50
" 25.	" Jas. Doyle, 4 milch cows	180 00
Feb. 1.	" H. C. Orser, 1 milch cow	45 00
" 7.	" Thos. E. Hughes, repairs and implements	35 19
" 7.	" M. Walsh, 2 milch cows	100 00
" 7.	" E. Burnside, 5 milch cows	210 00
" 7.	" Geo. Croft, rent of pasture, 1901	50 00
March 4.	" K. & P. Railway, 74 loads manure at 30c	22 20
" 11.	" Thos. Hilton, harness repairs	10 53
" 19.	" Kingston Pen'y, 8 toise macadam, $20.00; 300 bush. gravel, $30.00	50 00
" 29.	" H. C. Orser, 3 milch cows	120 00
" 31.	To balance	339 37
		1,222 79
April 7.	To cash paid Dr. Nichols, medicine and tuberculine test	7 00
" 17.	" Geo. Amey, exhange of horse for team	255 00
May 31.	" F. Greenwood, 1 milch cow	45 00
June 25.	" Henry Geriege, shearing sheep	3 00
" 30.	" Jno Gross, 1 mare	125 00
" 30.	To balance	179 12
		614 12

1901.	Receipts.	$ c.
Oct. 1.	By balance	668 24
Nov. 1.	By cash from R. Hunter, 5 dry cows	180 00
Dec. 10.	" J. Doyle, 3 young pigs, $2.50	7 50
" 10.	" M. Walsh, 20 "	50 00
" 27.	" A. McLean, 31 "	77 50
		983 24
1902.		
Jan. 1.	By balance	725 69
" 8.	By cash from R. Hunter, 5 dry cows	165 00
" 29.	" " 3 "	105 00
Feb. 18.	" M. McFarland, 5 young pigs	14 00
" 25.	" A. McLean, 11 "	27 50
" 25.	" " 1,450 rags	18 12
" 25.	" " old iron	1 88
Mar. 7.	" " 1 young pig	2 50
" 7.	" Dr. Clarke, old bones	1 00
" 26.	" R. Hunter, 4 dry cows	157 00
" 26.	" W. J. Carnice, green bones	3 60
" 26.	" Dr. Clarke, old bones	50
" 26.	" " "	1 00
		1,222 79
April 1.	By balance	339 37
" 18.	By cash from Dr. Clarke, old bones	75
" 18.	" A. McLean, 14 young pigs	35 00
" 15.	" Dr. Clarke, old bones	1 00
" 21.	" " "	1 00
May 2.	" " "	1 00
" 31.	" maintenance of 2,210 pork at 6	132 60
June 28.	" A. McLean, 34 young pigs	103 40
		614 12

July	11.	To cash paid H. J. Powell, 1 milch cow	50	00
"	15.	" Selly & Gouldon, smoke stack and repairs	50	44
"	21.	" W. McFarland, 1 milch cow and calf	39	00
Aug.	8.	" M. Doyle, 1 milch cow	40	00
"	12.	" W. Massie, 14,000 shingles	47	50
"	16.	" E. Burnside, 7 milch cows	270	00
"	19.	" R. Elliott, 1 milch cow	50	00
Sept.	5.	" J. Laturney, 1 spring wagon	55	00
"	9.	" W. A. McGill, V.S., medicine and attendance	65	75
"	30.	To balance	102	73
			770	42

July	1.	By balance	179	12
"	11.	By cash from R. Hunter, 7 dry cows	290	00
Aug.	8.	" A. McLean, 36 young pigs at $2.50	90	00
"	13.	" R. Hunter, 5 dry cows	180	00
"	13.	" A. McLean, 3 young pigs at $2.50	7	50
Sept.	26.	" " 1,500 lbs. rags	17	50
"	29.	" A. McIver, 1,260 lbs. scrap iron at ½c.	6	30
			770	42
Oct.	1.	By balance	102	73

ANNUAL REPORT OF THE MEDICAL SUPERINTENDENT OF THE ASYLUM FOR INSANE, HAMILTON, FOR THE YEAR ENDING 30TH SEPTEMBER, 1902.

Medical Superintendent's Office, October 1st, 1092.

To Robert Christie, Esq.,

Inspector of Asylums, Ontario :

Sir,—I have the honor to submit the Twenty-seventh Annual Report of the Asylum for the Insane, at Hamilton, for the year ending September 30th, 1902.

—	Male.	Female.	Total.	Male.	Female.	Total.
Remaining in Asylum, October 1, 1901				468	561	1,029
Admitted during year :						
By Lieutenant-Governor's Warrant	33	14	17			
" ordinary process of certificate	32	67	99			
Total admitted				65	81	146
Total number under treatment during the year				533	642	1,175
Discharged during year :						
Recovered	21	23	44			
Improved	6	14	20			
Unimproved	1	6	7			
Total discharges	28	43	71			
Died	27	17	44			
Eloped	1		1			
Transferred to Cobourg Asylum		42	42			
Total				56	102	157
Remaining in residence, 30th September, 1902				477	540	1,017

Admissions.

The last official year began with 1,029 names on our register, and at its close there are 1,017, a decrease of 12. The number admitted during the year just closed is 146, which is an increase of 23 above the number admitted last year. There were 16 more females than males admitted during the year, and there are to day 63 more females than males on our register, notwithstanding the fact that 42 females were transferred to Cobourg during the year.

Every proper case for asylum treatment which was applied for during the year, was promptly admitted; in fact, several infirm, senile cases were admitted which should have been cared for at home.

Besides caring for all applications from our own district, we admitted 6 from the Toronto and 2 from the London districts. With our present capacity, we appear to have overtaken the demand for admission from our own district, and begin the new official year with 26 vacancies.

Discharges.

The number discharged as recovered and improved during the year is 64, which is 43.83 per cent. of the admissions. Of the 20 cases discharged as improved, we are assured that many of them have gone on to complete recovery. Of the 7 cases discharged as unimproved, at the solicitation of friends, several have since improved, and continue to remain at home. The total discharges were 71, and one case eloped, which has not been since heard

of, and is accordingly written off our books. The deaths were 41, so that the total discharges were 136, which is only 10 less than the total admissions. Forty-two women were transferred to the new asylum at Cobourg. These cases were all of the quiet, chronic class, and require no special treatment.

Death Rate.

The percentage of deaths on the total number under treatment during the year is 3.74, as against 4.36 last year. This is a remarkably low death rate, and speaks well for the healthfulness of our household and the salubrity of our environment.

Rate of Maintenance.

The rate of maintenance this year is $127.62 per capita, against $112.29 last year, which is a per capita increase of $15.33. The rate last year was abnormally low, and several large accounts which were incurred last year are included in this year's accounts. The fuel account is $6,746.61 in excess of last year, and the lighting account exceeds last year by $5,195.72. This latter account practically included the lighting for two years, and was the outcome of the change from gas to electric light. The fuel problem is a serious one with us, as with everyone else, on account of the miners' strike. We have still a three months' supply on hand, and it is to be hoped the situation will be relieved before our present supply is exhausted.

Farm.

In common with every other part of Canada, our farm yielded a bountiful return. The following table of products, with estimated valuation, shows that the season has been an unusually fruitful one. This enormous return will go far to lessen the cost of maintenance during the coming year.

Produce.		Price.	Value.
		$ c.	$ c.
Rye,	6 acres, 169 bushels	50	84 50
Fall wheat,	10 " 381 "	72	274 32
Spring "	10 " 255 "	68	173 40
Oats,	40 " 2,676 "	32	856 32
Hay,	150 tons	8 00	1,200 00
Straw,	80 "	6 00	480 00
Potatoes,	4,000 bushels	50	2,000 00
Carrots,	100 "	20	20 00
Mangolds,	5,000 "	20	1,000 00
Turnips,	1,500 "	20	300 00
Corn for silo,	22 acres, 275 tons	1 20	330 00
Milk,	173,840 quarts	3	5,215 20
Live hogs,	164	... .	2,048 20
		.....	13,981 94

Garden.

The yield from the garden was very abundant, and has done much to enrich the dietary at the asylum. Fruit and vegetables of great variety and profusion were furnished during the season. A special feature was the enormous yield of peaches, which were greatly appreciated. An enormous quantity of fruit has been canned, and we go into winter's quarters well prepared with a rich supply of fruit for immediate use during the winter. The estimated yield from the garden, which includes 30,000 bedding plants from

the Greenhouse, is $6,242.79. In table 23, which is appended to this report, there is a detailed statement of the total products, and an estimated valuation.

The ornamental grounds never looked so well as this year. The abundant rains kept the lawns fresh and beautifully green the whole summer through. The flowers and foliage also grew in rich profusion, and were greatly admired. We were honored by a visit from the British Journalists who were officially touring Canada, and they were greatly delighted, as well as surprised, to find such splendid provision made for the comfort and happiness of the unfortunate insane, which, they said, equalled, if not surpassed, anything they had witnessed in the Old Land.

Repairs and Alterations.

The water-closet system on the halls at Main Building is undergoing a thorough renovation, and will soon be completed. The old insanitary tank system has been superseded by the porcelain self-flusher, with marble slab partitions. The floors are being laid with tile and the ceilings with steel, the wooden wainscotting is torn out, and finished in hard cement plaster, so that there is nothing left to absorb odors or encourage insanitary conditions.

The Gegenstrom hot and cold spray-baths have been introduced into two of the bath-rooms during the year. This makes six bathrooms in which it is in operation. There are still four bathrooms waiting to be furnished in the same way, which we hope to see done during the coming year, and the Main Building will then be complete, with a new system of the most approved methods of bathing. This is a great improvement on the old bath tub system, not only in regard to expedition and cleanliness, but economy in the use of water as well.

The female basement has undergone a thorough renovation—the floor and joists had become decayed from dampness and was no longer inhabitable. Broken stone was filled in from the foundation and covered with a heavy bed of cement to the level of the joists, and a new floor laid throughout. The wooden wainscotting, which had also decayed, was torn out and plastered down to the floor. The place is now more wholesome and comfortable, and is equal to any of the other halls as a place of residence for patients.

Many other repairs and alterations were made during the year, which are too numerous to mention here, but which are duly recorded in the annexed reports of the several heads of departments.

Wants for the Future.

A nurses' home is one of the requirements of the future. Every year we find it more and more difficult to retain our staff of nurses. The work is a trying one under the best possible conditions; the hours are long, in vitiated atmosphere, and under a constant mental strain, which is prejudicial to health. To spend the whole 24 hours of each day in perpetual contact with the insane is, to say the least of it, anything but a desirable occupation, and especially so when excited and noisy patients keep the night as well as the day hideous with noise.

In all large hospitals a nurses' home is now recognized as a necessary and indispensable part of the equipment, and if this be so under general hospital management, how much more so must it be in an asylum, where the labor is more exacting, and all the conditions more prejudicial to both mental and physical health?

We require a new Amusement Hall. The present Hall is too small—it was intended to provide for about one-half the population now on our

register. It is inconveniently situated on the third storey of the Main Building, and can only be reached by a circuitous climbing of stairs, from the other buildings. It is dangerous from fire, as its mode of exit is through a single door, which in case of panic would early become obstructed, with consequent loss of life. What we want is an independent building, situated conveniently to all the buildings, and of sufficient size to seat 800 people.

We require a large curling and skating rink. This is about the only outside sport we can provide for our patients in winter. To keep a large army of patients housed up in winter is neither healthful nor curative, and it becomes us to devise some means of outdoor recreation to relieve the monotony and gloom which is necessarily associated with the lives of so many morbid minds congregated together.

The function of an asylum has been too long regarded as a place for the custodial care of the degenerate and dangerous classes who have become a burden or a menace to society. Every-day experience proves that by specialized methods of treatment a large percentage of the insane may be cured. The dictates of humanity, as well as science, require that we shall utilize every reasonable means for the accomplishment of this end. Our patients may be comfortably housed and surrounded by the best sanitary and hygienic conditions—we may exploit the whole pharmacopoeia in the administration of the best drugs, and yet may utterly fail in discharging our whole duty to our patients. In order to maintain mental and physical health at its maximum there must be a diversity of functional exercise in the life. Without fresh air, exercise and recreation we dwindle and die, because such life is contrary to the law of our being. From an economical standpoint, as well as on humanitarian grounds, it is also profitable. Every case we cure relieves the State of the burden of custodial care, and returns to the community a person again endowed with all the rights of citizenship.

Water and Light.

The subject of furnishing a local water supply for the asylum is still unsolved. We are still dependent on the arbitrary water rates charged by the city for our supply, notwithstanding a strong appeal made to them for a reduction. I am glad to know that active steps are to be taken by the Government with a view to finding a supply on the Mountain. I trust the Government will not relinquish its efforts until every known method is exhausted. Abundance of water has been found all around us, and there are several large flowing springs within easy distance of the asylum.

The addition of half a dozen electric arc lights from the main avenue gate leading into the asylum, to the Incline Railway station at the top of the Mountain, would be a great convenience to us. This is the principal thoroughfare between the asylum and the city. At night it is a frequent resort of rough characters from the city, and is a constant menace to the nurses, attendants and other employees, who visit the city when off duty in the evening. I took the liberty of interviewing the Barton Township Council on the question, and found them fully alive to the necessities of the situation, but did not commit themselves to any promise of expenditure. I trust the Government will approve of a small appropriation next session for the purpose of relieving this disagreeable and even dangerous situation.

General Remarks.

In reviewing the work of the year, there is nothing very striking in our history to record. We have pursued the even tenor of our way, and have endeavored to discharge the great public trust committed to us faithfully

and well. The changes in the staff of nurses, attendants and employees have been more frequent than usual, and the difficulty of filling these positions with the proper class is becoming more and more urgent. The prosperous condition of every branch of industry in the country is attracting the best class of workers into a great variety of lucrative employment, with the prospect of rapid promotion. It is difficult for institutional labor, with a fixed rate of wages, to compete with these conditions, and the result is that we are sometimes compelled to pick up a class that falls to the rear in the struggle of life.

The General Hospital, especially in the United States, is attracting the flower of our young Canadian womanhood into the nursing profesison. The Asylum nursing service has not yet arrived at the dignity of a recognized profession, largely because of the rooted prejudice existing in the public mind against these institutions, and the prevailing opinion that the asylum nurse, however well trained, cannot compete in efficiency with the general hospital nurse. Feeling the handicap under which they labor, many of them drift away from the asylum into the general hospitals for training, and afterwards take up private nursing in the large cities as a profession. We are strongly of opinion that the well trained asylum nurse is better equipped for managing the large class of nervous disorders which people are subject to, than the general hospital nurse. Is it not a fact that the large class of ailments, especially among women, grouped under the head of neurasthenia, are on the borderland of insanity, and require a special tact and skill in nursing which can only be received in an institution where nervous diseases are specially treated ?

The most of our asylums have now an hospital proper attached for the treatment of every class of disease, including surgical cases, which has opened a wide field of nursing experience. The medical staff gives a course of lectures on mental diseases, general medicine, and surgery as well, so that the nurse has all the facilities of a general hospital for training in general nursing, with the additional advantage of experience in nursing nervous diseases.

A recent innovation in some of the asylums in both Great Britain and the United States, is the placing of female nurses on the male wards, and wherever it has been tried it is heralded by its advocates as a success. In the Old Land the subject is undergoing a very heated discussion between psychologists of the highest authority in the specialty, and at present there seems nothing for it but to await with interest the outcome of the experiment. Our kinsmen across the sea appear to be far in advance of us on the subject of asylum nursing. The whole question is under the management and control of the British Medico-Psychological Association, which appoints a central examining board, before which all candidates for the nursing certificate, of both sexes, must come for examination. This certificate gives the holder of it a professional status of uniform standard throughout Great Britain and Ireland, and enables the holder of it to higher wages and preferment of rank. It occurs to me we have much to learn in this regard from our brethren on the other side of the Atlantic in matters pertaining to organization and of elevating the nursing profession to a higher status of scientific and public recognition.

We might also copy with advantage from them the scientific spirit evinced by their asylum workers in the wide field of original research into the mysteries of neurological and psychological science. The asylum medical service furnishes a large number of indefatigable workers, who are constantly exploring the mysterious relation of mind to matter, and are persistent by their efforts in forcing nature to yield up her secrets, with

a view to establish a correct theory of the laws which govern every mental manifestation in health as well as in disease. In this country we are content to sit at the feet of these tireless workers, and profit by their labors, but we are doing nothing ourselves to further scientific research in our asylums. We haven't sufficiently imbibed the scientific spirit, and are too easily content with the daily mechanical routine of duties. We are simply marking time, and have no aspiration to unlock the door of hidden treasures within, which nature is waiting to bestow.

A pathological institute, centrally situated and supported by State aid, for the training of our young physicians, is one of the urgent requirements of the day, if we are to keep pace with the trend of scientific research in other countries. The asylums are able to furnish an enormous amount of pathological material of the greatest scientific interest, and which is now going to waste.

Death of Dr. Reynolds.

Dr. Reynolds, who was Assistant Superintendent, and had been connected with this asylum for seventeen years, died on the 9th of June last. About the beginning of the year he contracted a cold, accompanied by a cough, with slight hemorrhage in the expectoration. He was advised to go down to Southern Pines, in North Carolina, for the winter, and take advantage of the more salubrious climate of that region. His letters from there to members of the staff were cheerful, and he continued to hope that he would again be able to resume his duties at the asylum.

In the early part of June, accompanied by Mrs. Reynolds and his little daughter, he left Southern Pines for Baltimore in order to consult Dr. Osler, who was an old personal friend. The fatigue of the journey was too much for his already exhausted strength, and he was taken to the Johns Hopkins Hospital, by order of Dr. Osler, where he received the best medical skill and nursing, but he gradually sank, and died the following day.

His untimely death in the midst of his usefulnes was greatly lamented at the asylum, not only by the official staff, but by the patients, to whom he was ever a kind and thoughtful friend. He was a man of lovable disposition and generous impulses, and was never known to lose his temper. He was especially fitted for asylum work, was punctual and methodical in everything he did, and ever at his post. If he erred at all it was in too great devotion to his work. Ever anxious to serve others, he thought least about himself, and in that sense he died a martyr to his profession and the noble charity which was his life's work.

Changes in the Staff.

Dr. Frank Beemer, of the London Asylum, was promoted to the position of Assistant Superintendent vacated by the death of Dr. Reynolds. Dr. St. Charles was transferred to Mimico Asylum, and Dr. Wilson, of the London staff, was appointed in his place here. Miss Porter, of the Kingston Asylum, was appointed chief attendant here, and resigned after occupying the position five months, and Mrs. Ferrier was appointed to the vacant position. Mrs. McMillan, chief nurse at the Hospital, was transferred to the Toronto Asylum, and Miss Gill, an ordinary nurse at this asylum, was promoted to the vacant position as chief nurse.

I have the honor to be, Sir,

Your Obedient Servant,

JAMES RUSSELL, Medical Superintendent.

ANNUAL STATISTICAL REPORT

Of the operations of the Asylum for Insane, Hamilton, for the year ending 30th September, 1902.

TABLE No. 1.

Shewing movements of patients in the Asylum for the official year ending September 30th, 1902.

	Male.	Female.	Total.	Male.	Female.	Total.
Remaining October 1st, 1901	.....	.....	.....	468	561	1029
Admitted during year :—						
By Lieutenant-Governor's Warrant	33	14	47			
" Medical Certificate	32	67	99	65	81	146
Total number under treatment during year	.....	.....	.....	533	642	1,175
Discharges during year :—						
As recovered	21	23	44			
" improved	6	14	20			
" unimproved	1	6	7			
Total number of discharges during year	28	43	71			
Died	27	17	44			
Eloped	1	0	1			
Transferred	0	42	42	56	102	158
Remaining in Asylum, 30th September, 1902	.....	.....	.....	477	540	1,017
Total number admitted since opening of Asylum	2,048	2,104	4,152			
" discharged	755	876	1,631			
" died	597	499	1,096			
" eloped	73	3	76			
" transferred	146	186	332			
" remaining, 20th September, 1902	.....	.....	.....	477	540	1,017
No. of applications on Fyle	.....	.....	.....	6	16	22

TABLE No. 2.

Shewing the maximum and minimum number of patients resident in the Asylum, the total number of days' stay of patients, and the daily average number of patients in the Asylum, from the 1st October, 1901, to the 30th September, 1902.

	Male.	Female.	Total.
Maximum number of patients in residence (on the 24th of February, 1902)	483	563	1,046
Maximum number of patients in residence (on the 2nd of March, 1902)	481	522	1,003
Collective days' stay of all patients in residence during year	174,926	199,791	374,717
Daily average population	479,249	547,372	1,026,621

Social State.	Admissions of year.			Total admissions since opening.		
	Male.	Female.	Total.	Male.	Female	Total.
Married	35	50	85	945	1,211	2,156
Widowed						
Single	30	31	61	1,103	893	1,996
Not reported						
Total	65	81	146	2,048	2,104	4,152
Religion.						
Presbyterians	13	19	32	382	381	763
Episcopalians	11	16	27	405	370	775
Methodists	15	21	36	481	525	1,006
Baptists	5	2	7	99	132	231
Congregationalists		1	1	13	13	26
Roman Catholics	8	13	21	369	407	776
Mennonites	1		1	20	12	32
Quakers				9	7	16
Infidels				1		1
Other denominations	4	4	8	166	195	361
Not reported	8	5	13	103	62	165
Total	65	81	146	2,048	2,104	4,152
Nationalities.						
English	7	2	9	321	230	551
Irish	2	7	9	234	355	589
Scotch	1	4	5	141	141	282
Canadian	52	60	112	1,178	1,210	2,388
United States	1	3	4	56	51	107
Other Countries	1	4	5	70	76	146
Unknown	1	1	2	48	41	89
Total	65	81	146	2,048	2,104	4,152

TABLE No. 3.

Shewing the counties from which patients have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total admissions.		
	Male.	Female.	Total.	Male.	Female.	Total.
Algoma District				9	5	14
Brant	5	5	10	104	129	233
Bruce				7	17	24
Carleton				10	10	20
Dufferin	4	1	5	29	31	60
Elgin				5	7	12
Essex				3	1	4
Frontenac				19	7	26
Grey	9	7	16	118	91	209
Haldimand	4	3	7	89	77	166
Halton	1	7	8	67	78	145
Hastings				6	8	14
Huron		1	1	5	12	17
Kent	1		1	7	5	12
Lambton				8	4	12
Lanark				1	2	3
Leeds and Grenville				7	6	13
Lennox and Addington				10	1	11
Lincoln	3	6	9	114	117	231
Middlesex		1	1	16	11	27
Muskoka District				15	2	17
Nipissing District				2	3	5
Norfolk	2	2	4	85	92	177
Northumberland and Durham				35	30	65
Ontario				26	33	59
Oxford				16	12	28
Parry Sound District				3	3	6
Peel				16	25	41
Perth				7	11	18
Peterborough				9	17	26
Prescott and Russell				3	4	7
Prince Edward				5	2	7
Rainy River District				1		1
Renfrew				4	2	6
Simcoe				206	160	366
Stormont, Dundas and Glengarry				13	10	23
Thunder Bay District				4	2	6
Victoria				11	21	32
Waterloo	2	5	7	109	99	208
Welland	6	9	15	93	128	221
Wellington	9	4	13	183	195	378
Wentworth	16	27	43	389	441	830
York	3	3	6	176	193	369
Not classed				3		3
Total admissions	65	81	146	2,048	2,104	4,152

TABLE No. 4.

Shewing the counties from which warranted cases have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total admissions.		
	Male.	Female.	Total.	Male.	Female.	Total.
Algoma District				8	1	9
Brant	1	1	2	43	33	76
Bruce				6	8	14
Carleton				9	6	15
Dufferin	1	1	2	18	10	28
Elgin				2	2	4
Essex				2	1	3
Frontenac				18	2	20
Grey	7	3	10	78	43	121
Haldimand	2		2	35	14	49
Halton	1		1	30	22	52
Hastings				6	6	12
Huron				2	3	5
Kent	1		1	6		6
Lambton				7	1	8
Lanark				1	1	2
Leeds and Grenville				7	5	12
Lennox and Addington				9		9
Lincoln	2	4	6	71	43	114
Middlesex		1	1	8	6	14
Muskoka District				9	2	11
Nipissing District				2	2	4
Norfolk	2		2	42	37	79
Northumberland and Durham				22	14	36
Ontario				20	20	40
Oxford				13	8	21
Parry Sound District				3	2	5
Peel				6	8	14
Perth				6	7	13
Peterborough				9	11	20
Prescott and Russell				3	3	6
Prince Edward				3	2	5
Rainy River District				1		1
Renfrew				4		4
Simcoe				147	82	229
Stormont, Dundas and Glengarry				11	3	14
Thunder Bay District				4	2	6
Victoria				9	18	27
Waterloo	1		1	57	19	76
Welland	4	1	5	44	28	72
Wellington	2		2	72	40	112
Wentworth	6	2	8	76	60	136
York	3	1	4	148	143	291
Not classed						
Total admissions	33	14	47	1,077	718	1,795

TABLE No. 5.

Shewing the length of residence in the Asylum of those discharged during the year.

No.	Initials.	Sex.	When admitted.	When discharged.	Remarks.
1	T. W	M	January 26, 1887	October 5, 1901	Improved.
2	W. H. R	M	August 24, 1899	" 11, 1901	Recovered.
3	W. M	M	September 25, 1899	" 16, 1901	Improved.
4	M. B	F	December 7, 1900	" 26, 1901	"
5	S J. McL	F	" 23, 1900	" 30, 1901	Unimproved
6	L. A. R	F	August 18, 1901	" 31, 1901	"
7	E. W. S	F	October 27, 1900	November 1, 1901	Improved.
8	M. K	F	May 3, 1901	" 13, 1901	Recovered.
9	D. K	M	August 7, 1901	" 14, 1901	"
10	M. G	F	March 3. 1894	" 14, 1901	"
11	L. D	F	May 21, 1901	" 21, 1901	"
12	A. E. M	M	February 26, 1897	" 28, 1901	Unimproved.
13	E. W	F	October 3, 1900	December 7, 1902	"
14	A. C	F	" 22, 1901	" 30, 1901	Improved.
15	E. M	F	May 21, 1901	January 6, 1902	Recovered.
16	A. W	M	December 2, 1901	" 10, 1902	"
17	L. B.	F	" 16, 1901	" 21, 1902	Unimproved,
18	E. T	F	June 23, 1892	February 25, 1902	Recovered.
19	E. B	M	" 11, 1901	March 28, 1902	"
20	E K	F	April 27, 1899	April 5, 1902	Improved.
21	S. S	F	November 3, 1900	" 7, 1902	Unimproved.
22	E. P	M	March 6, 1902	" 10, 1902	Recovered.
23	S. J. W	F	July 5, 1901	" 16, 1902	Improved.
24	M. K	M	May 28, 1900	" 16, 1902	Recovered.
25	A. H	F	February 25, 1901	" 25, 1902	"
26	J. P	M	July 26, 1900	" 28, 1902	"
27	M. McE	F	September 15, 1901	" 28, 1902	"
28	M. G	F	February 9, 1902	" 28, 1902	"
29	F. B	F	March 8, 1902	" 29, 1902	"
30	E. H	F	September 13, 1901	" 30, 1902	"
31	A. McM	F	July 6, 1901	May 3, 1902	Improved.
32	M. D	M	October 8, 1895	" 9, 1902	Recovered.
33	A. J	F	March 6, 1902	" 10, 1902	"
34	M. H	M	June 9, 1901	" 12, 1902	Improved.
35	J. P	M	March 31, 1902	" 21, 1902	"
36	B. G	F	" 25, 1902	" 30, 1902	"
37	J. O'G	M	" 22, 1902	June 6, 1902	Recovered.
38	C. L	F	December 11, 1901	" 6, 1902	"
39	W. W	M	November 20, 1901	" 6, 1902	"
40	G. T	M	May 11, 1901	" 6, 1902	"
41	A. E. M	M	April 22, 1892	" 26, 1902	Improved.
42	D. B	F	November 23, 1899	" 26, 1902	"
43	H. R	M	June 8, 1901	" 26, 1902	Recovered.
44	M. D	F	April 28, 1898	July 5, 1902	"
45	S. P	M	August 8, 1901	" 9, 1902	"
46	F. B	F	" 25, 1899	" 22, 1902	"
47	R. Z	M	July 5, 1901	" 22, 1902	"
48	E. S. C	M	January 24, 1899	" 28, 1902	"
49	E. J. McK	F	" 4, 1902	August 4, 1902	"
50	F. H. W	M	April 29, 1902	" 11, 1902	"
51	C. A. C. D	M	October 7, 1901	" 30, 1902	"
52	C. H.	M	September 15, 1900	September 3, 1902	"
53	M. J. G	F	August 29, 1890	" 3, 1902	Improved.
54	J. M	F	January 22, 1902	" 3, 1902	Recovered.
55	T. B	M	December 13, 1901	" 3, 1902	"
56	G. M	F	August 24, 1902	" 6, 1902	Unimproved.
57	A. P	F	May 8, 1902	" 8, 1902	Recovered.
58	N. H. F	F	March 4, 1902	" 8, 1902	"
59	M. S.	F	April 29, 1902	" 8, 1902	"
60	A. M. E	F	March 29, 1902	" 9, 1902	Improved
61	A. H	F	April 5, 1902	" 15, 1902	Recovered.
62	M. S.	F	" 7, 1902	" 15, 1902	"
63	S. C. F	F	July 19, 1883	" 15, 1902	Improved.
64	N. S	F	August 4, 1902	" 17, 1902	"
65	A. C	F	July 22, 1902	" 18, 1902	"
66	W. B	M	June 3, 1901	" 30, 1902	Recovered.
67	M. B	F	September 27, 1901	" 30, 1902	"
68	M. W	F	" 29, 1891	" 30, 1902	"
69	B. R. S	M	August 20, 1901	" 30, 1902	"
70	G. S.	F	March 5, 1902	" 30, 1902	Improved.
71	A. D	M	July 15, 1902	" 30, 1902	Recovered.

TABLE No. 6.

Shewing age, length of residence, and proximate cause of death of those who died during the year ending 30th September, 1902.

No.	Initials	Sex.	Age.	Date of death.	Residence in Asylum. Years.	Months.	Days	Proximate cause of death.
1	D. C.	M	60	October 4	....	2	29	Apoplexy.
2	E. R.	M	43	" 5	5	4	28	Epilepsy.
3	M. S.	F	71	" 17	....	9	27	Exhaustion of mania.
4	V. D.	M	39	" 19	....	....	20	Pneumonia.
5	D. M.	M	53	" 26	1	9	15	Exhaustion of mania.
6	C. S. W.	M	44	November 2	5	6	6	Paresis.
7	H. F.	F	59	" 9	....	....	2	Exhaustion of melancholia.
8	J. H.	M	68	" 16	....	1	4	" "
9	L. P.	F	36	" 30	....	9	19	Typhoid fever.
10	N. E.	F	18	December 6	....	4	18	Pulmonary tuberculosis.
11	D. F.	M	80	" 9	6	6	21	Senile decay.
12	A. C.	F	62	" 17	2	1	7	Epilepsy.
13	P. T. McC.	M	39	" 27	....	....	12	Paresis
14	J. C.	F	80	January 11	25	9	18	Senile decay.
15	D. S.	M	56	February 10	....	1	14	Exhaustion of mania.
16	J. H.	M	62	" 13	13	6	9	Pyaemia.
17	D. T.	M	55	" 27	....	1	14	Paresis.
18	J. W.	M	29	March 2	2	8	29	Phthisis.
19	B. P.	M	60	" 17	4	11	19	Tuberculosis.
20	A. McG.	M	54	" 20	9	10	18	Paresis.
21	M. B.	F	82	" 21	21	3	14	Pneumonia.
22	G. W.	M	45	" 22	1	4	29	Erysipelas.
23	M. E.	F	77	" 27	....	....	20	Pneumonia.
24	F. B.	F	55	April 1	13	7	3	Epilepsy.
25	A. M. P.	F	77	" 1	1	7	4	Peritonitis.
26	A. S.	M	64	" 6	8	2	10	Apoplexy.
27	A. C.	M	72	" 25	13	8	22	Phthisis.
28	F. McC.	F	26	May 25	....	8	6	Tuberculosis.
29	B. M.	M	54	July 2	17	6	23	Endocarditis.
30	E. M. R.	F	28	" 2	....	....	25	Strangulation.
31	A. McC.	M	50	" 8	2	10	21	General paresis.
32	N. M.	M	78	" 10	7	9	26	Acute cystitis.
33	J. G. W.	F	65	" 14	1	10	7	Senile decay.
34	B. S.	F	21	" 28	....	10	8	Phthisis.
35	W. H. F.	M	53	August 15	12	4	20	General tuberculosis.
36	T. A.	M	68	" 16	4	4	16	Valvular disease of heart.
37	L. W. G.	M	62	" 16	1	3	5	Peritonitis.
38	E. B.	M	50	" 20	3	1	8	Pyelo-nephritis.
39	M. K.	F	64	" 23	4	1	17	Epilepsy.
40	L. C.	M	41	September 6	....	10	2	Diarrhœa.
41	W. McC.	M	67	" 8	14	1	4	Cardiac disease.
42	M. F.	F	60	" 9	....	1	24	Senile decay.
43	M. B.	M	60	" 19	....	....	2	Cardiac disease.
44	E. J. R. B.	F	44	" 21	2	5	4	Phthisis.

TABLE No. 7.

Shewing Trades, Callings and Occupations of Patients admitted into the Asylum.

Trades, callings and occupations.	During the Year.			During Former Years			Total.
	Males.	Females	Total.	Males.	Females	Total.	
Agents				9		9	9
Architects				3		3	3
Actuaries					1	1	1
Book-keepers				9	2	11	11
Bakers				4		4	4
Bricklayers				5		5	5
Butchers				12		12	12
Blacksmiths				25		25	25
Brewers				1		1	1
Builders				3		3	3
Barbers		2	2	4	1	5	7
Broom-makers				2		2	2
Bookbinders				1	1	2	2
Brickmakers				3		3	3
Brakesmen				1		1	1
Basket makers				1		1	1
Commercial travellers				4		4	4
Cabinet-makers				3		3	3
Consuls				1		1	1
Confectioners				1		1	1
Coopers				6		6	6
Carpenters	1		1	67		67	68
Clerks	1		1	45	9	54	55
Clergymen	1		1	12		12	13
Carriage-makers				3		3	3
Cooks					4	4	4
Carders				3	1	4	4
Captains of steamboats				1		1	1
Cigarmakers				8		8	8
Custom-house Officers				2		2	2
Coachmen				1		1	1
Civil Servants				2		2	2
Carters				4		4	4
Dyers				2		2	2
Domestic servants, all kinds		2	2	2	447	449	451
Dressmakers		2	2		37	37	39
Detectives				1		1	1
Druggists				7		7	7
Dentists	1		1	4		4	5
Engineers	1		1	8		8	9
Editors				3		3	3
Farmers	22		22	611	3	614	636
Fishermen				6		6	6
Furriers				1		1	1
Firemen				1		1	1
Florists				1		1	1
Gardeners				11		11	11
Grocers	1		1	7	1	8	9
Glass-blowers				1		1	1
Gentlemen				9		9	9
Hostlers				3		3	3
Harness-makers				6		6	6
Housekeepers		61	61	1,072		1,072	1,133
Inn-keepers				12	1	13	13
Jewellers				3		3	3
Janitors				3		3	3
Labourers	19		19	551		551	570
Laundresses					7	7	7
Ladies					3	3	3
Lawyers				3		3	3
Lumbermen				1		1	1
Lithographers				1		1	1
Milliners					5	5	5
Masons				5		5	5
Machinists				30		30	30

TABLE No. 7. —*Continued.*

Trades, callings and occupations.	During the Year-			During Former Years.			Total.
	Males,	Females	Total.	Males.	Females	Total.	
Millers				4		4	4
Moulders				11		11	11
Merchants				20	9	29	29
Mechanics	1		1	29	2	31	32
Music-teachers					3	3	3
Marble-cutters				3		3	3
Matrons					2	2	2
Midwives					1	1	1
Motormen				1		1	1
Musicians				1		1	1
Mariners	1		1				1
Manufacturers	1		1				1
No occupation	2	5	7	46	115	161	168
Night-watchmen				2		2	2
Nurses		1	1		8	8	9
Not stated				26	77	103	103
Organ-builders				1		1	1
Other occupations	7	1	8	57	11	68	76
Plasterers				1		1	1
Photographers				4		4	4
Prostitutes				1		1	1
Painters				32		32	32
Printers				9	1	10	10
Peddlers				8	1	9	9
Physicians				2		2	2
Pump-makers				2		2	2
Porters				2		2	2
Paupers		1	1				1
Potters	1		1				1
Railway employees				4		4	4
Spinsters					15	15	15
Sailors				11		11	11
Students		1	1*	13	3	16	17
Spinners				9	7	16	16
Stone-cutters				6		6	6
Saddlers				4		4	4
Shoemakers				28		28	28
Seamstresses					27	27	27
Station-masters				1		1	1
Soldiers				2		2	2
Salesmen				2		2	2
Surveyors				1		1	1
Sail and tent-makers				1		1	1
Shopkeepers				1		1	1
Ship-builders				4		4	4
Sawyers				1		1	1
Stenographers				1		1	1
Telegraph operators	1		1				1
Teachers	1		1	13	23	36	37
Tinsmiths	1		1	7		7	8
Tavern keepers				3		3	3
Tailors		4	4	13	15	28	32
Tanners				2		2	2
Teamsters	1		1	5		5	6
Undertakers				1		1	1
Upholsterers				1		1	1
Veterinary surgeons				1		1	1
Watchmakers				1		1	1
Wood-workers				2		2	2
Weavers				6	7	13	13
Waggon-makers				6		6	6
Wool workers				2	1	3	3
Waiters				1		1	1
Unknown or other employments	1	1	2	30	99	129	131
Total	65	81	146	3,056	950	4,006	4,152

TABLE No. 8.

Shewing causes of Insanity.

Causes of Insanity. In respect of the admissions for the year ending 30th September, 1902.	Number of instances in which each cause was assigned.					
	As predisposing cause.			As exciting cause.		
	Male.	Female.	Total.	Male.	Female.	Total.
Moral.						
Domestic troubles, including loss of relatives or friends				3	11	14
Religious excitement				2	2	4
Adverse circumstances, including business troubles				3	1	4
Love affairs, including seduction				2	3	5
Mental anxiety, "worry"				1	1	2
Fright and nervous shocks				1	2	3
Physical.						
Intemperance in drink				5		5
Intemperance, sexual						
Veneral disease				1	1	2
Self-abuse, sexual				8	1	9
Over-work				5	5	10
Sunstroke						
Accident or injury				2		2
Pregnancy					2	2
Puerperal					5	5
Lactation					1	1
Puberty and change of life					6	6
Uterine disorders					3	3
Brain disease, with general paralysis						
Brain disease, with epilepsy					1	1
Other forms of brain disease						
Other bodily diseases or disorders, including old age				6	2	8
Fevers						
Hereditary.						
With other ascertained cause in combination						
With other combined cause not ascertained	19	24	43			
Congenital.						
With other ascertained cause in combination						
With other combined cause not ascertained						
Unknown	46	57	103	26	34	60
Total	65	81	146	65	81	146

TABLE No. 9.

Shewing the probational discharges and the result thereof.

Reg. No.	Sex.	Initials.	Date of probational discharge.	Term of probation.	Result.
3969	F	S. J. W.	October 1, 1901	3 months	Discharged improved.
3936	F	H. E. L.	" 2, "	3 "	Returned.
3963	M	E. B.	" 3, "	3 "	Discharged recovered.
3945	F	M. K.	" 7, "	3 "	" "
3833	M	M. K.	" 11, "	3 "	" "
3832	M	J. O.	" 15, "	3 "	Returned.
3918	F	S. J. McL.	" 16, "	3 "	Discharged unimproved.
3928	F	A. H.	" 23 "	3 "	" recovered.
3992	M	B. S.	" 26, "	3 "	Returned.
3861	F	J. A.	November 21, "	3 "	"
3859	M	J. P.	" 28, "	3 "	Discharged recovered.
3955	F	C. A. J.	December 20, "	3 "	Returned.
3774	F	D. B.	" 24, "	3 "	Discharged improved.
2059	M	G. V.	" 24, "	3 "	Returned.
3989	M	S. P.	" 24, "	3 "	Discharged recovered.
2518	M	A. E. M.	" 24, "	3 "	" improved.
4030	M	A. W.	" 24, "	1 month	" recovered.
3950	M	G. T.	" 25, "	3 months	" "
3940	F	M. R.	" 31, "	3 "	Returned.
3524	F	M. D.	" 31, "	3 "	Discharged recovered.
4010	M	C. D.	February 15, 1902	3 "	" "
3942	F	F. B.	" 18, "	3 "	" "
3995	F	M. McE.	March 8, "	3 "	" "
3577	M	R. R.	" 29, "	1 month	Returned.
3956	M	W. B.	" 29, "	3 months	Discharged improved.
3644	M	E. S. C.	" 31, "	3 "	" recovered.
4032	F	B. S.	April 5, "	3 "	Returned.
3878	M	C. H.	" 12, "	3 "	Discharged recovered.
4064	M	E. P.	" 9, "	3 "	" "
3936	F	E. H. S.	" 26, "	3 "	Still out.
4019	M	W. J.	" 28, "	3 "	Returned.
4066	F	A. J.	May 2, "	3 "	Discharged recovered.
4045	F	E. J. McK.	" 3, "	1 month	" "
2442	F	M. W.	" 20, "	3 months	" "
3796	M	E. W. E.	" 22, "	3 "	Still out.
4034	F	R. C.	" 28, "	1 month	Returned.
2272	F	M. J.	" 31, "	1 "	Discharged unimproved.
1250	M	W. McE.	" 31, "	3 months	Still out.
4061	F	M. H. F.	June 7, "	3 "	Discharged recovered.
4039	M	T. B.	" 9, "	3 "	" "
4092	F	F. W.	" 13, "	3 "	" "
4062	F	G. S.	" 20, "	3 "	" improved.
4005	F	M. B.	" 25, "	3 "	" recovered.
3251	M	G. A. McE.	" 28, "	3 "	Returned.
4051	F	J. McG.	" 30, "	2 "	Discharged recovered.
4097	F	A. P.	July 5, "	2 "	" "
4091	F	M. S.	" 5, "	2 "	" "
1027	F	S. F.	" 14, "	2 "	" improved.
3940	F	M. R.	" 19, "	2 "	Still out.
3992	M	B. R. S.	" 26, "	2 "	Discharged recovered.
4082	F	A. M. E.	August 9, "	1 month	" improved.
3777	F	N. H.	" 22, "	2 months	Still out.
4087	F	M. S.	" 27, "	1 month	Discharged recovered.
3681	M	W. M.	September 2, "	3 months	Still out.
3935	F	C. M.	" 12, "	3 "	" "
2532	F	M. J. B.	" 15, "	3 "	" "
4110	F	A. C.	" 16, "	2 "	" "
4105	F	A. C.	" 19, "	3 "	" "

Summary of probational discharges.

	Males.	Females.	Total.
Number to whom probational leave was granted	23	35	58
Discharged, recovered	13	14	27
" improved	2	5	7
" unimproved		2	2
Died before expiration of leave			
Returned to Asylum	6	6	12
Absent on probation on 30th September, 1902	3	7	10

TABLE No. 10.

Shewing in quinquennial period, the ages of those admitted, recovered and died during the year.

Ages.	Admitted.			Recovered.			Died.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female	Total.
From 10 to 15 years									
" 15 to 20 "	2	5	7					1	1
" 20 to 25 "	3	8	11	3	1	4		1	1
" 25 to 30 "	4	4	8	3	3	6	1	2	3
" 30 to 35 "	11	3	14	1	3	4			
" 35 to 40 "	11	9	20	5	3	8	2	1	3
" 40 to 45 "	4	14	18	1	4	5	3	1	4
" 45 to 50 "	9	12	21	2	2	4	1		1
" 50 to 55 "	5	9	14	2	4	6	6		6
" 55 to 60 "	4	6	10				2	2	4
" 60 to 65 "	7	5	12	2	3	5	6	3	9
" 65 to 70 "	5	2	7	1		1	3	1	4
" 70 to 75 "		2	2	1		1	1	1	2
" 75 to 80 "		1	1				1	2	3
" 80 to 85 "							1	2	3
" 85 to 90 "									
" 90 to 95 "									
Unknown		1	1						
Totals	65	81	146	21	23	44	27	17	44

TABLE No. 11.

Periods.	Duration of insanity prior to admission.	Length of residence of those remaining in asylum on 30th Sept.	Periods of treatment of those who were discharged during the year.		
			Cured.	Improved.	Unimproved
Under 1 month	15	14			1
From 1 to 2 months	19	6	3	3	
" 2 to 3 "	9	15	3	2	1
" 3 to 4 "	7	7	2		
" 4 to 5 "	8	9	2		
" 5 to 6 "	5	6	3	1	
" 6 to 7 "	5	15	3	1	
" 7 to 8 "	1	6	5		
" 8 to 9 "	4	6	2	1	
" 9 to 10 "	6	8	1	1	
" 10 to 11 "	1	4	1	1	1
" 11 to 12 "	1	12	1	1	
" 12 to 18 "	8	37	6	1	3
" 18 months to 2 years	3	25	3	1	
" 2 to 3 years	16	46	3	3	
" 3 to 4 "	7	63	2		
" 4 to 5 "	3	51	1		1
" 5 to 6 "	9	57			
" 6 to 7 "	1	45			
" 7 to 8 "	1	33	1		
" 8 to 9 "		47			
" 9 to 10 "		35	1		
" 10 to 15 "	4	243	1	3	
" 15 to 20 "	2	142		1	
" 20 years and upwards	3	85			
Not stated	8				
Totals	146	1,017	44	20	7

TABLE No. 12.

Shewing the nature of employment and the number of day's work performed by patients during the year.

Nature of employment.	Number of patients who worked.	Days worked.		
		Male.	Female	Total.
Carpenter's shop	4	1,011		1,011
Tailor's shop	3	939		939
Shoe shop	4	1,047		1,047
Engineer's shop	8	2,624		2,624
Mason work	10	1,529		1,529
Bakery	4	1,216		1,216
Laundry	33	3,434	5,771	9,205
Dairy	7	2,466		2,466
Butcher's shop and slaughter house	4	469		469
Painting	5	1,386		1,386
Farm	36	7,880		7,880
Garden	90	19,880		19,880
Stable	7	2,251		2,251
Kitchen	21	2,109	4,786	6,895
Dining rooms	65	8,541	14,133	22,674
Officers' quarters	7		2,270	2,270
Sewing rooms	58		16,061	16,061
Knitting	48		13,044	13,044
Mending	22		3,723	3,723
Wards	445	82,964	68,331	151,295
Storeroom	4	389		389
General	40	4,992	8,383	13,375
Total	925	145,127	136,502	281,629

TABLE No. 13.

Shewing the Counties and Districts from which the patients remaining in residence on the 30th September, 1902, were originally received.

Counties and Districts.	Males.	Females	Total.	Counties and Districts	Males.	Females	Total.
Algoma District	3	1	4	Norfolk	23	29	52
Brant	35	39	74	Northumberland		2	2
Bruce	1	3	4	Ontario	3	2	5
Carleton		2	2	Oxford	5	4	9
Dufferin	10	11	21	Parry Sound District	1	3	4
Elgin		2	2	Peel	3	5	8
Essex	1		1	Perth	3	3	6
Frontenac	6		6	Peterborough	1	2	3
Grey	49	38	87	Rainy River District	1		1
Haldimand	18	27	45	Simcoe	43	43	86
Halton	19	21	40	Stormont	1		1
Huron	2	1	3	Thunder Bay District	1		1
Kent	2	1	3	Victoria	1	2	3
Lambton	1		1	Waterloo	27	39	66
Leeds	1		1	Welland	29	41	70
Lennox and Addington		1	1	Wellington	54	56	110
Lincoln	30	22	52	Wentworth	79	109	188
Middlesex	2	2	4	York	20	27	47
Muskoka District	2		2				
Nipissing District		2	2	Total	477	540	1,017

TABLE No. 14.—Patients transferred to other Asylums.

Initials of persons transferr'd	Age.	Sex. Male.	Sex. Female.	County originally admitted from.	Nationality. Canadian.	Nationality. English.	Nationality. Irish.	Nationality. Scotch.	Nationality. United States.	Nationality. Other country's or unknown	Religious denomination. Ch. of England	Religious denomination. Roman Catholic	Religious denomination. Presbyterian.	Religious denomination. Methodist.	Religious denomination. Other denominations.	Social State. Married or widow'd	Social State. Unmarried.	Duration of insanity prior to admission. Years	Duration of insanity prior to admission. Mo's.	Admitted by Warrant.	Admitted by Certificate.	Occupation.	Asylum transferr'd to.
E. S.	62	....	1	York	....	1	....	....	....	....	....	....	1	....	....	1	....	20	....	1	....	Home duties	Toronto.
E. J. G.	50	....	2	Haldimand	1	....	..	....	....	....	1	....	....	....	....	2	....	3	....	.....	1	" "	"
S B.	54	....	3	Lincoln	....	....	....	....	1	....	....	1	....	....	....	3	....	....	2 w'ks	2	....	Domestic	Cobourg.
E. D.	62	....	4	York	....	....	1	....	....	....	....	....	....	....	1	4	....	....	3 w'ks	....	2	"	"
S. D.	43	....	5	Simcoe	....	....	....	....	....	1	....	....	....	....	2	....	1	3	....	3	....	Not stated	"
L. B.	38	....	6	"	....	....	2	....	....	....	....	....	2	....	....	....	2	....	6	4	....	Servant	"
S. J. C.	49	....	7	"	2	....	....	....	....	....	2	....	....	....	....	....	3	....	2 w'ks	....	3	Home duties	"
B. B.	40	....	8	Halton	3	....	....	....	....	....	....	....	....	....	3	5	....	....	3 w'ks	5	....	" "	"
J. B.	53	....	9	Simcoe	4	....	....	....	....	....	....	....	....	1	....	6	....	....	2 w'ks	6	....	" "	"
E. T. M.	33	..	10	"	5	....	....	....	....	....	....	....	....	2	....	....	4	3	....	....	4	Not stated	"
L. E C.	35	....	11	"	6	....	....	....	....	....	3	....	....	....	....	....	5	2	..	....	5	Home duties	"
M. J. C	47	....	12	Wentworth	7	....	....	....	....	....	....	....	....	....	4	....	6	Not known		7	....	Servant	"
M. A. F.	36	....	13	Wellington	8	....	....	....	....	....	....	....	....	....	5	....	7	....	2 w'ks	8	....	"	"
B. B.	29	....	14	York	9	....	....	....	....	....	....	2	....	....	....	....	8	..	2½	9	....	Not stated	"
S. S.	31	....	15	Peterboro'	10	....	....	....	....	....	4	....	....	....	....	....	9	2	....	10	....	Home duties	"
M E.	27	....	16	York	11	....	....	....	....	....	5	....	....	....	....	....	10	Not stated		11	....	None	"
E. J. M.	54	....	17	"	....	....	3	....	....	....	6	....	....	....	....	7	....	1	....	12	....	Domestic	"
M. M.	43	....	18	"	....	2	....	....	....	....	....	....	....	....	6	....	11	Not known		13	....	"	"
M. M.	34	....	19	"	12	....	....	....	....	....	....	....	3	....	....	8	....	3	....	14	....	Home duties	"
F. H.	28	....	20	"	13	....	....	....	....	....	7	....	....	....	....	9	....	....	3	15	....	None	"
J. L.	40	....	21	Grey	14	....	....	....	....	....	....	....	....	3	....	....	12	....	4	....	6	Home duties	"
S. J. F.	52	....	22	York	15	....	....	....	....	....	8	....	....	....	..	10	....	2	....	16	....	" "	"
M McG.	73	....	23	Wentworth	....	....	4	....	....	....	....	3	....	....	....	11	....	....	2 w'ks	....	7	Housekeeper	"
H. B.	33	..	24	Victoria	16	....	....	....	....	....	....	....	....	4	....	....	13	....	11	17	....	Domestic	"
A. H.	47	....	25	Simcoe	17	....	....	....	....	....	....	....	....	....	7	12	....	....	6	....	8	Home duties	"
M E. B.	53	....	26	York	....	....	5	....	....	....	....	....	4	....	..	13	..	18	....	18	..	None	"
M. D.	61	....	27	Huron	....	....	6	....	....	....	..	4	....	....	....	....	14	Some years		19	....	Servant	"
C. K.	38	....	28	York	18	....	....	....	....	....	....	5	....	....	....	....	15	31	....	20	....	None	"
E. S.	53	....	29	Dundas	19	....	....	....	....	....	....	....	....	5	....	....	16	24	....	....	9	Home duties	"
M. McG.	44	....	30	Wentworth	....	..	7	....	....	....	....	6	....	....	....	....	17	....	1	....	10	Servant	"
H. L.	56	....	31	Grey	20	....	....	....	....	....	9	....	....	....	....	14	....	Several	....	21	....	Home duties	"
E. E. R.	57	....	32	"	21	....	....	....	....	....	....	....	....	6	....	15	....	5	..	....	11	" "	"
R. M. R.	28	....	33	Wentworth	....	3	....	....	....	....	10	....	....	....	....	....	18	....	1 w'k	....	12	" "	"
N. N.	34	....	34	Wellington	22	....	....	....	....	....	....	....	....	....	8	16	....	....	2 w'ks	..	13	" "	"
M. P.	39	....	35	"	23	....	....	....	....	....	....	....	5	....	....	....	19	5	....	....	14	Domestic	"
B. H.	29	....	36	Lincoln	24	..	....	....	....	....	11	....	....	....	....	....	20	2	....	....	15	None	"
J. G.	38	....	37	York	25	....	....	....	....	....	....	....	6	....	....	....	21	....	2½	22	....	Domestic	"
E H.	60	....	38	Wellington	....	..	8	....	....	....	....	7	....	....	....	17	....	Several	....	23	....	Charwoman	"
E. F.	30	....	39	Wentworth	26	....	....	....	....	....	....	....	....	....	9	..	22	Not stated	..	24	....	Servant	"
E. W.	33	....	40	York	....	4	....	....	....	....	12	....	....	....	....	....	23	....	6	25	....	None	"
H. W.	....	....	41	Lincoln	....	....	..	....	2	....	13	....	....	....	....	18	....	22	....	26	....	Home duties	"
E. H	58	....	42	York	....	....	9	....	....	....	....	....	7	....	....	19	....	5	....	27	....	Pauper	"

TABLE No. 15.

Shewing the number of articles made and repaired in sewing rooms during the year ending September 30th, 1902.

Articles.	Made.	Repaired.	Articles.	Made.	Repaired.
Aprons	762	2,672	Nightdresses	292	3,260
Bed ticks	197	3,145	Pillow ticks	4	.....
Blouses	19	2	Pillow slips	1,086	450
Blinds	278	7	Pillowshams	24	.....
Bibs	132	.....	Pudding cloths	36	.....
Blankets	.....	23	Pants	.....	2,746
Caps (uniform)	107	.....	Sheets	1,051	935
Capes	3	.....	Shirts	662	4,176
Chemises	562	4,159	Stockings	850	3,574
Curtains (pairs)	86	23½	" footed	.....	75
Carpet-rag (balls)	81	.....	Socks	568	4,617
Coats	.....	1,216	Skirts	322	1,345
Combination Suits	.....	36	Shrouds	42	.....
Counterpanes	.....	460	Sofa pillows	5	.....
Cushions (fancy)	5	10	Toilet covers	30	.....
Doilies	33	.....	Tidies	7	.....
Dusters	2	.....	Tea bags	21	.....
Drawers	600	2,250	Towels	877	295
Drapes (sideboard)	1	.....	Table napkins	36	.....
Fringe for blinds (yards)	48	.....	Tablecloths	100	.....
Dresses	535	7,332	Tablecovers	16	2
Guernseys	.....	98	Table mats	8	.....
Jackets	277	.....	Tray cloths	4	.....
Hats trimmed	136	12	Uniform dresses	87	.....
Handkerchiefs	31	.....	Uniform waists	6	.....
Lace, yards (knitted	127	.....	Under vests	11	.....
Lounge covers (crocheted)	2	.....	Vests	.....	296
Mats	33	.....	Wrappers	16	.....
Mitts, pairs	63	.....			
Matress ticks	85	24	Total	10,366	43,240½

TABLE No. 16.

Number of articles passing through the laundry during the year ending 30th September, 1902.

Articles.	No.	Articles.	No.
Aprons	44,269	Nightdresses	23,998
Blankets	9,765	Pillow slips	51,361
Blinds	40	Pillow shams	3,256
Blouses	1,679	Pillow ticks	401
Bed ticks	6,223	Pudding cloths	500
Bibs	4,303	Pants	28,496
Chemises	44,598	Sheets	75,214
Collars	9,536	Skirts	22,148
Corsets	96	Stockings	25,216
Corset covers	1,093	Shirts	32,794
Carpets	923	Socks (pairs)	24,186
Curtains	2,760	Suits	229
Counterpanes	5,062	Towels	38,176
Cuffs (pairs)	5,276	Tablecloths	22,453
Coats	4,195	Table napkins	6,240
Dresses	23,216	Tidies	742
Drawers	28,453	Toilet covers	954
Dusters	316	Undervests	2,136
Handkerchiefs	9,175	Vests	1,994
Jackets	2,764		
Mats	452	Total	565,333
Neckties	645		

TABLE No. 17.

Number of articles made and repaired in tailor's shop during the year ending 30th September, 1902.

Articles.	Made.	Repaired.	Articles.	Made.	Repaired.
Coats	119	53	Overalls	33	.....
Vests	80	21			
Trousers	404	66			
Coats (attendants' uniforms)	29	35	Total	704	264
Trousers "	29	89			
Smocks	10	.....	Summer jackets cut out to be made by seamstresses	.....	252

TABLE No. 18.

Amount of work done in shoe shop during the year ending 30th September, 1902.

Articles.	New work	Repaired.	Articles.	New work	Repaired.
Shoes, pairs	582	170	Leather mitts, pairs	82	6
Cloth slippers	2	7	Razor strops	24	.....
Muffs, setts	7	4			
Braces	50	3	Total	747	190

TABLE No. 19.

Shewing the number of articles made and repaired in the carpenter's shop during the year ending September 30th, 1902.

Articles.	Made.	Repaired.	Articles.	Made.	Repaired.
Window blinds put up	98	....	Chairs, common	.....	187
"	.....	59	Wagon boxes	.....	4
Easels	5	14	Meat boards	4	.....
Carts	.....	6	Barrel covers	6	.....
Doors	6	23	Towel rollers	6	.....
Ottomans	7	9	Tables	3	16
Water-closet seats	4	14	Wardrobes	6	3
Lounges covered	10	9	Elevators	.....	6
Hay racks	.....	3	Window stops	.....	187
Refrigerators	.....	14	" cords	.....	208
Sinks	.....	13	" parting strips	.....	141
Ornamental tables	13	27	" sash	.....	14
Wagon-reaches	5	.....	Large brushes	24	68
Stepladders	2	6	Boxes for plants	24	.....
Bread-cutters	3	5	Picture frames	14	31
Mat frames	5	.....	Mirror frames	6	.....
Handles, stone hammer	.....	171	Perforated seats	.....	54
" sledge hammer	.....	7	Iron-ended "	.....	73
Locks	.....	47	Wooden "	.....	17
Base-boards	.....	31	Pig troughs	.....	7
Chairs, rocking	.....	39	Fly screens	4	10
" arm	.....	61	Folding screens	10	4

Put V matching on ceilings of six rooms.
Made packing cases for Mrs. McMillan.
Made packing cases for Mrs. Reynolds.
Made 12 large polishing brushes for Cobourg Asylum.
Built altar for R. C. service in Amusement Hall.
Repaired ice-house doors.
Repaired lime house.
New floor in water-closet in E.H., and put in new breast and seat for water-closet.
Shelves, etc., in shoe shop.
Repaired floors in stables.
General repairs to all farm buildings.

TABLE No. 19.—*Continued.*

Dryers in laundry.
Bath-room floors in O.H.
Bread wagon repaired.
Repaired quarry shed.
Repaired Queen street steps.
Frequent repairs to sidewalks all round.
Packing cases for supplies sent to Cobourg Asylum.
Sharpened 130 pairs scissors.
Filed and set crosscut saws 65 times.
Removed wainscot from 15 single rooms, 8 dormitories and the hall.
Strapped and lathed the same for plaster. Put on base on all the rooms and hall. Repaired the frames, doors, etc., all through the halls and rooms.
Put new joists down in concrete and laid new floor in 15 single rooms and 8 dormitories and hall in female basement ward, M.B.
Iron rods, etc, to stay roof farm barn.
Shelves in library at Superintendent's house.
Removed wainscot and floor, lowered joists and replaced damaged ones, laid rough floor for cement and tile in water-closets, halls A. B. C. D and 1, 2, 3 and 4, M.B.
Put in door and fitted up storeroom with drawers and shelves, with partitions for clothing, etc., in hall B, M.B.
Removed wainscot, joists and floor in bath-rooms on halls 1 and A, and put in iron beams and wooden arches to receive the brick, cement and tile floor.

TABLE No. 20.

New work performed by Engineer during the year ending September 30th, 1902.

ORCHARD HOUSE: Pipe used, 140 feet 1½ inch. Fittings used, tees 3, nipples 9, R. L. couplings 2, elbows 10, and valves 2.

NEW PIPES IN FEMALE BASEMENT: Pipe used, 100 feet 1 inch, 50 feet 1¼ inch. Fittings used, nipples 16, tees 5, elbows 14. Also 25 feet 1½ pipe. Fittings—3 elbows, 1 tee, 6 nipples and 2 valves.

NEW FEED-PIPE FOR NEW BOILER IN WEST BOILER HOUSE: Pipe used, 40 feet 1½ inch. Fittings—Elbows 4, tee 1, nipples 1, R. L. buckle, and pipe-straps 4.

NEW PIPES FOR HOT AND COLD WATER FOR SINKS IN ORCHARD HOUSE: Pipe used, 100 feet ¾ inch; elbows 12, tees 12, nipples 24, compression cocks 24, and 24 pipe-straps.

NEW PIPE ON RETURN HEATING: Pipe used, 110 feet 1½ inch; elbows 14, unions 4, nipples 39, and 4 Jenkins Globe valves.

WORK IN TYPE-WRITER'S ROOM: Material used, 3 sheets galvanized iron, 30 ft. 1½ in.-pipe, 10 elbows, and 7 nipples.

NEW HEATING COIL IN DOCTOR'S BATH-ROOM, EAST HOUSE: Material used, 125 feet 1½ inch pipe, 25 elbows, 7 pipe hangers, 2 Globe valves, 1 air cock, 4 nipples, 2 tees, and 2 unions, R. L. couplings 2, and return bends 4.

STEAM PIPE FOR HOT-WATER BOILER, E. H.: Pipe used, 40 feet ¾ inch; elbows 6, 1 union, 1 Globe valve.

DRAIN PIPE FROM SINK IN EAST HOUSE: Pipe used, 15 feet 4-inch; elbows 2, tees 3.

HEATING PIPE TO FIRE HALL: Material used, 40 feet 3-inch pipe, 4 elbows, 1 union, 2 nipples, 1 Globe valve, and 1 tee.

DRIP PIPES IN ORCHARD HOUSE: Material used, 100 feet ¾-in. pipe, 24 elbows, 4 Globe valves, and 6 pipe hangers.

NEW WASTE PIPE FROM SINKS IN ORCHARD HOUSE: Material used, 60 feet 1-in. pipe, 12 elbows, 3 tees, and 12 nipples

CLOSET TANK IN FEMALE BASEMENT RE-LINED: Material used, galvanized iron 2 sheets, and solder 3 lbs.

RE-LINED WATER-CLOSET, EAST HOUSE: Material used, galvanized iron 2 sheets, and 2 lbs. tacks.

EXHAUST PIPE ON PUMPS, EAST BOILER HOUSE, MAIN BUILDING: Material used, 90 feet 2-in. pipe, 3 elbows, 2 tees, 1 union, 2 valves, and 12 pipe straps.

DRIP PIPES FROM STEAM KETTLES IN O. H.: Material used, 25 feet 1½-in. pipe, 2 tees, 10 elbows, 2 stop cocks and 2 unions.

NEW COIL IN FEMALE BASEMENT: Material used, 200 feet 1½-in. pipe, elbows 14, nipples 2, valves 2; also 14 feet 1-in. pipe, elbows 6, unions and nipples.

NEW RETURN PIPE IN ORCHARD HOUSE: Material used, 100 feet 1½-in. pipe, elbows 14, angle elbows 45, unions 1, steam coil pipe 125 feet, 1½-in. 24 return bends, 6 valves, and 4 R. L. couplings.

NEW FEED PIPE IN EAST BOILER HOUSE: Material used, 45 feet 1½-in pipe, 58 feet 1½-in. pipe, and 4 valves.

NEW FEED PIPE FOR BOILER O. H.: Material used, 60 feet 1½-in. pipe return from steam kettles, pipe 40 feet 1½-in., 4 elbows, 3 tees, 2 stop-cocks, and 6 nipples.

BOILERS, ORCHARD HOUSE: 24 square feet of new grates.

BURSAR'S WIRE FENCE REPAIRED: Material used, 176 feet 1-in. old pipe and 44 ft. 1½ in. pipe.

GENERAL REPAIRS: Valves, 635; water taps, 2,500 repaired and replaced; beds repaired and replaced with new springs, 700; stoves and ranges repaired, 50; water closets attended to 230 times; steam and other leaks attended to 575 times; washing machines repaired 80 times, steam pumps repaired 35 times; baths repaired and cleaned out, 75; engine in new barn twice repaired; engine in laundry 3 times repaired; tinware repaired, 1,650 pieces; electric lamps on grounds repaired different times; braces and bolts made for carpenter; braces and bolts made for new barns; 50 window guards repaired and attended to; electric light on ground trimmed every 10 days; messenger's waggon repaired; electric lights, incandescent, repaired and replaced, 500; shears sharpened for gardener 50 times; shovels repaired for farmer; grate bars replaced under boiler in barn; wash-basin and tap in chief male attendant's room; laundry wringers repaired; refrigerators repaired, 2; drills for quarry made, 2; drills for quarry repaired and sharpened 50 times; spectacles repaired, 25 pairs; sinks attended to, 47; wash-basins attended, 30; bread waggon repaired twice; ropes on dumb waiters repaired and new ones placed 25 times; other work not enumerated.

TABLE No. 21.

Showing work done by the Painter during the year ending Sept. 30th, 1902.

Month.	Work done.
October	Painted greenhouse outside, and put in 50 panes of glass
November	Painted Miss Rice's room and furniture, seven bedrooms and furniture on Hall B. M. B., and bronzed picture-frames at Orchard House.
December	Painted Orchard House chairs and East House radiators, gas pipes and chairs.
January	Painted one room for Matron, one room for Dr. Webster, 2 front halls, and whitewashed Nightwatch's rooms and halls.
February	Painted 3 halls at Orchard House.
March	Painted Hall 6, Orchard House, also hall, bedrooms, dining-room and store room.
April	Finished Hall 6, Orchard House, painted Matron's dining-room, Main Building.
May	Whitewashed 2 ceilings, front and back hall, main building.
June	Painted East House bedrooms, floors and water-closets.
July	Bedroom floors, male and female, Main Building, Dr. Beemer's three rooms and furniture, and varnished Supervisor's furniture on Hall D. ; also painted Attendant's room, Hall 3.
August	Painting Hospital ; Supervisor's room, Hall A. ; wardrobes, Orchard House ; book-case, Dr.
September, and October.	Russell's house. Numerous small tables and chairs for different parts of institution. Painted cook's furniture at Hospital. Pictures painted and bronzed.

TABLE No. 22.

Work done by Mason during the year ending September 30th, 1902.

Month.	Work done.
February	Whitewashed sub-ways and basement, Main Building.
March	Plastered one side of bath-room on Hall 4, Orchard House.
April	Repaired three furnaces, West Boiler House, M. B. Built two brick boxes on steam pipe leading to East House.
May	Repaired two man-holes, brick-work, Orchard House ; also two stoves in Kitchen, Main Building.
June	Plastered in bath-room brick-work, and laid cement floor, Hall B., Main Building.
July	Plastered walls of female basement and bedrooms, Main Building ; plastered one bath-room on Hall 2, Main Building.
August	Plastered one water-closet and laid cement floor, Hall D , M. B. ; plastered one water-closet and laid cement floor, Hall 4, M. B. ; Hall C. water-closet plastered and laid floor, M. B.
September	Plastered walls of water-closet, Hall 3, and laid cement floor ; plastered Hall B. water-closet, laid cement floor ; Hall 2 water-closets plastered and cement floor laid.

TABLE No. 23.

Shewing the products of the garden during the year ending Sept. 30th, 1902.

Articles.	Quantities.	Price.	Value.
		$ c.	$ c.
Apples	446 bushels	60	267 60
Asparagus	25 bunches	01	25
Beans	91½ bushels	40	36 60
Beets	1,472 bunches	02	29 44
Beets	96 bushels	60	57 60
Citron	220	05	11 00
Carrots	1,300 bunches	01	13 00
Carrots	376 bushels	20	75 20
Cauliflower	789	05	39 45
Currants	2,013 quarts	05	100 65
Cucumbers	28,588	01	285 88
Corn, green	1,532 dozen	08	122 56
Cabbage	9,623 heads	04	384 92
Grapes	608 pounds	03	18 24
Gooseberries	488 quarts	05	24 40
Kale	340 heads	01	3 40
Lettuce	8,615 "	01	86 15
Onions	16,594 bunches	01	165 94
Onions	42 bushels	60	25 20
Pumpkins	57	05	2 85
Parsnips	195 bushels	30	58 50
Peppers	½ bushel	75	38
Plums	39 bushels	40	15 60
Peaches	322 "	40	128 80
Plants	30,000 bedding	08	2,400 00
Plants, annuals	5,000 "	02	100 00

TABLE No. 23.—*Continued.*

Articles.	Quantities.	Price.	Value.
		$ c.	$ c.
Plants, G. H	3,000 "	25	750 00
Pears	32 bushels	1 25	40 00
Peas, green	159 "	32	60 88
Quince	3½ "	1 50	5 25
Radishes	5,175 bunches	01	51 75
Radishes	174 bushels	60	104 40
Rhubarb	11,350 "	02	227 00
Raspberries	4,266 quarts	05	213 30
Strawberries	2,667 "	05	133 35
Squash	1,506	05	75 30
Tomatoes	334½ bushels	30	100 35
Turnips	138 bushels	20	27 60
			$6,242 79

TABLE No. 24.

Products of farm during year ending September 30th, 1902.

Produce.	Price.	Value.
	$ c.	$ c.
Rye 6 acres, 169 bushels	50	84 50
Fall Wheat. 10 " 381 "	72	274 32
Spring Wheat 10 " 255 "	68	173 40
Oats 40 " 2,676 "	32	856 32
Hay 150 tons	8 00	1,200 00
Straw 80 tons	6 00	480 00
Potatoes 4,000 bushels	50	2,000 00
Carrots 100 "	20	20 00
Mangolds 5,000 "	20	1,000 00
Turnips 1,500 "	20	300 00
Corn for silo 22 acres 275 tons	1 20	330 00
Milk 173,840 quarts	3	5,215 20
Live Hogs 164		2,048 20
		$13,981 94

Work Done on Farm: 40 rods wire fence built; 30 loads beach-gravel hauled; 8 loads sand drawn.

TABLE No. 25.

Shewing quantity of milk and cost of feeding cows for the year ending 30th September, 1902.

Months.	Quarts of milk.	Value of milk at 3 cents per quart.	Cost of feed.	Value of milk over cost of feed.
		$ c	$ c.	$ c.
October	15,644	469 32	154 68	314 32
November	14,512	435 36	205 68	229 68
December	13,104	393 12	212 60	180 52
January	13,048	391 44	207 07	184 37
February	12,004	360 12	196 28	163 84
March	14,320	429 60	215 80	213 80
April	14,048	421 44	216 32	205 12
May	15,464	463 92	209 67	254 25
June	15,160	454 80	202 27	252 53
July	15,652	469 56	206 28	263 28
August	15,764	472 92	210 58	262 34
September	15,120	453 60	204 26	249 34
	173,840	5,215 10	2,441 49	2,773 39

TABLE No. 26.

HAMILTON ASYLUM.—Farm Exchange Account.

1901.	Disbursements.	$ c.
Oct. 1.	To cash paid R. Hunter, 4 milch cows	187 25
" 15.	" Jacob Young, threshing grain, 1,666 bus. at 2c.	33 32
" 15.	" " " 533 " 2c.	10 66
" 15.	" Dixon Bros., fruit	91 50
" 15.	" E. Kraft, harness repairs	8 38
" 15.	" Thos. S. Morris, bran	51 09
" 15.	" Massey-Harris Co, repairing implements	17 82
" 15.	" J. J. McQuarrie, potatoes	15 60
" 15.	" Alex. McFarlane, chopped peas	65 40
" 15.	" John Roger, horseshoeing	13 26
" 15.	" Thos. Upton, fruit	140 70
" 17.	" R. Hunter, 1 milch cow	47 50
" 26.	" Brown Bros., trees	10 50
Nov. 10.	" Armstrong, stabling for horses, 1900	10 00
" 10.	" " " 1901	10 00
" 10.	" S. M. McKay, " 1901	25 00
" 10.	" Dixon Bros., fruit	175 00
" 10.	" Massey-Harris Co., repairing implements	1 50
" 10.	" Alex. McFarlane, chopped peas	65 40
" 10.	" John Roger, horseshoeing	6 63
" 10.	" E. Kraft, harness repairing	58 30
Dec. 11.	" R. Hunter, 4 milch cows	204 75
" 31.	To balance	87 84
		1,337 40
1902		
Jan. 18.	To cash paid R. Hunter, 4 milch cows	194 50
Feb. 17.	" " " 3 "	141 75
Mch. 7.	" " " 4 "	196 25
" 13.	" Alex. McFarlane, chopped feed	95 27
" 31.	To balance	310 07

1901.	Receipts.		$ c.
Oct. 1.	By balance		772 61
" 1.	By cash from R. Hunter, 3 dry cows		110 00
" 7.	" " " 1 "		40 00
" 27.	" R. Jamieson,	1 sow, 200 lbs. at 6½c.	13 00
Nov. 4.	" H. Glover,	1 " 210 " 6½c.	13 65
" 4.	" W. Rider,	1 hog, 180 " 6½c.	11 70
Oct. 31.	" R. Stalker,	1 " 158 " 6½c.	10 27
Nov. 8.	" F.W. Fearman & Co.,	3 hogs, 580 " 5¾c.	33 35
" 8.	" "	1 sow, 345 " 4c	13 80
" 25.	" Thos. Hawkins,	1 " 155 " 6c	9 30
" 25.	" W. Lemon,	1 boar pig	3 00
Dec. 9.	" W. O. Smith,	2 pigs, 270 lbs. at 6½c.	17 55
" 11.	" C. Smith,	1 boar pig	3 00
" 11.	" L. Smith,	2 pigs, 300 lbs. at 6½c.	19 50
" 14.	" R. Hunter,	3 dry cows	130 00
" 4.	" Lake & Bailey,	59½ bus. wheat at 76c.	45 03
" 4.	" "	95½ " 76c.	72 64
" 4.	" E. Sickle,	1 sow, 400 lbs. at 4c	16 00
" 4.	" John Taylor,	1 boar pig	3 00
			1,337 40
1902.			
Jan. 1.	By balance		87 84
" 2.	By cash from F. W. Fearman & Co.,	9 live hogs, 1,570 lbs. at $6 15	96 55
" 4.	" R. Hunter,	1 dry cow	36 00
" 17.	" "	4 "	150 00
" 21.	" John Hall,	2 pigs at $3.50	7 00
" 29.	" J. A. Devereux,	2 pigs, 340 lbs. at 7c	23 80
Feb. 7.	" R. Hunter,	4 dry cows	160 00
" 11.	" John Dickinson,	1 pig, 170 lbs. at 7c	11 90
" 15	" R. Hunter,	1 dry cow	37 00
" 27.	" F. W. Fearman Co.	10 live hogs, 1,800 lbs. at 5¾c	105 75
Mch. 7.	" R Hunter,	2 dry cows	84 00
" 18.	" F. W Fearman Co.,	9 live hogs, 1,680 lbs. at 5⅞c	96 60
" 20.	" Thos. Snider,	3 pigs, 500 lbs. at 6c	30 00
" 22.	" F. L. Gebel,	1 " 190 " 6c	11 40

			937 84
Mch. 26.	To cash paid	R. Huntor, 2 milch cows	95 25
" 20.	"	Wm McKay, repairing farm implements	4 00
Apr. 2.	"	R. Evans Seed Co., seeds, etc	84 75
" 11.	"	" " "	79 35
" 11.	"	Daniel Reed, straw	253 11
May 2.	"	R. Hunter, 2 milch cows	99 75
" 24.	"	" 4 "	207 25
June 11.	"	Thos. Brodfield, manure for garden	50 00
" 11.	"	R. Evans Seed Co., seeds, etc	59 75
" 25.	"	R. Hunter, 4 milch cows	182 25
" 30.	To balance		36 02
			1,151 48
July 23.	To cash paid	R. Hunter, 3 milch cows	147 25
Aug. 14.	"	Alex. McFarlane, chopped feed	338 95
" 26.	"	R. Hunter, 4 milch cows	175 75
Sep. 11.	"	Massey-Harris Co., repairing farm implements	1 40
" 11.	"	Lake & Baillie, bran	33 00
" 11.	"	John Rodger, horseshoeing	9 88
" 16.	"	A. Maguire, chopped feed	48 69
" 17.	"	R. Hunter, 2 milch cows	86 50
" 30.	To balance		1,182 89
	Carried forward		2,024 31

			937 84
Apr. 1.	By balance		310 07
" 2.	By cash from	R. Hunter, 2 dry cows	84 00
" 15.	"	F. W. Fearman Co., 12 live hogs, 2,070 lbs. at 6c	124 20
May 2.	"	R. Hunter, 4 dry cows	200 00
" 13.	"	F. W. Fearman Co., 10 live hogs, 1,830 lbs. at 6¾c	125 81
" 27.	"	11 " 1,860 " 6¾c	125 55
" 27.	"	1 " 150 " 6½c	9 75
June 4.	"	R. Hunter, 2 dry cows	96 00
" 5.	"	Jas. Loudon, 2 pigs at $2.50	5 00
" 6.	"	Edward Oakes, 1 cow (crippled)	20 00
" 16.	"	S. Hill, 1 sow, 150 lbs. at 7c	10 50
" 19.	"	D. Clarke, 2 pigs at $3.00	6 00
" 19.	"	Mary Almost, 2 " $2.50	5 00
" 21.	"	Wm. McDonald, 1 " 200 lbs. at 7c	14 00
" 28.	"	Adam Mitchell, 1 " 180 " 7c	12 60
" 28.	"	" 1 "	3 00
			1,151 48
July 1.	By balance		36 02
" 3.	By cash from	F. W. Fearman Co., 9 live hogs, 1,650 lbs. at 6¾c	109 31
" 3.	"	" 1 " sows, 320 " 4½c	14 40
" 11.	"	R. Hunter, 3 dry cows	140 00
" 17.	"	J. A. Murray, 2 live hogs, 340 lbs. at 7c	23 80
" 18.	"	Mrs. Almost, 2 young pigs at $3.00	6 00
" 21.	"	W. B. Rittenhouse, 2 " $3.00	6 00
" 24.	"	F. Murray, 18 live hogs, 3,320 lbs. at 7c	232 40
" 30.	"	John Nairn, 2 young pigs at $3.50	7 00
Aug. 1.	"	R. Hunter, 3 dry cows	125 00
" 5.	"	Mrs. Gourlay, 2 young pigs at $3.00	6 00
" 16.	"	F. W. Fearman Co., 1 live hog, 325 lbs. at 5c	16 25
" 16.	"	" 9 " 1,610 " 7⅛c	114 71
" 26.	"	Thos. Maclem, 1 live sow, 180 lbs. at 7½c.	13 50
" 26.	"	Jas. L. Wilson, 2 young pigs at $5.00	10 00
" 27.	"	R. Hunter, 4 dry cows at $40.00	160 00
" 28.	"	E. Freeborne, 1 live sow, 420 lbs. at 5c.	21 00
" 30.	"	Lake & Baillie, 356⅜ bus. fall wheat at 72c	256 80
Sep. 2.	"	A. Mallatt, 1 live boar	10 00
" 5.	"	Wesley Smith, 1 live sow, 410 lbs. at 5c.	20 50
" 5.	"	" 1 " 190 " 7½c	14 25
" 6.	"	Hamilton Distillery Co., 169⅜ bus. rye at 50c	84 82
" 11	"	R. Hunter, 2 dry cows	85 00
" 15.	"	Angus Young, 1 young pig	3 00
	Carried forward		

TABLE No. 26. – *Concluded.*

1902.	Disbursements.	$ c.
	Brought forward	2,024 31
		2,024 31

1902.	Receipts.						$ c.
	Brought forward						
Sept. 16.	By cash from F. W. Fearman Co.,	11	live hogs,	2,010	lbs. at	7c	140 70
" 19.	" R. Hunter,	2	dry cows				80 00
" 22.	" A. J. Olmsted,	2	young pigs at	$4.00			8 00
" 22.	" Hugh McGowan,	2	"	$3.00			6 00
" 23.	" F. W. Fearman Co.,	11	live hogs,	2,080	lbs. at	6¾c	140 40
" 27.	" "	2	"	740	"	5c.	37 00
" 27.	" "	7	"	1,300	"	$6.80	88 40
" 29.	" Geo. Nichol,	1	"	115	"	7c.	8 05
							2,024 31
Oct. 1.	By balance						1,182 89

ANNUAL REPORT OF THE MEDICAL SUPERINTENDENT OF THE ASYLUM FOR THE INSANE, MIMICO, FOR THE YEAR ENDING SETEMBER 30TH, 1902.

Mimico, October 4th, 1902.

To Robert Christie, Esq.,
Inspector of Asylums, Ontario :

Sir,—In accordance with the requirement of the statute, I have the honor to submit herewith the Eight Annual Report of this Asylum for year ending 30th September, 1902.

—	Male.	Female.	Total.
There were in residence on October 1st, 1901	303	302	605
Admitted during the year by warrant	31	14	45
" " certificates	33	53	86
Total admitted during the year	64	67	131
Total number under treatment during the year	367	369	736
Discharged during the year recovered	22	21	43
" " improved	3	3	6
" " unimproved	1	.....	1
Total number discharged during the year	26	24	50
" died "	18	15	33
" eloped "	1	.....	1
" transferred "	25	31	56
Total number leaving institution during year	70	70	140
Remaining in Asylum, September 30th, 1902	297	299	596

Admissions.

By an unusual coincidence, exactly the same number of patients were admitted during the past year as were admitted during the previous year, namely, 131; 64 being men and 67 women. Of this number 31 men and 14 women were admitted by Lieutenant Governor's warrant, while 33 men and 53 women were admitted by medical certificates. Of the 131 patients admitted 15 were over 60 years of age, and in 45 the mental disease had already become chronic, so that there was a much smaller number of the admissions who were recoverable, than would appear at first glance.

Died.

That the admissions of two succeeding years should number exactly the same is unusual, but it is still more remarkable that the deaths of these two years should also reach the same total, namely, 33. Of this number one half died from phthisis, epilepsy and exhaustion of acute mental diseases.

Discharges.

There were 50 patients discharged during the year, 26 men and 24 women, and, while the number is smaller than that of the previous year, it is relatively a large percentage of those who were not already chronics at the time of their admission.

Garden and Grounds.

During the past year the road along the lake side of the park grounds has been completed, and that along the east side has been almost finished, so that these grounds are now practically surrounded by good roads, and the newly made park itself has already become ornamental in appearance. In a very few years this park will be of equal value to the recreation ground adjoining it on the west, for it will afford the necessary shaded space requisite for the whole six hundred patients to enjoy a daily outing, under the trees and by the side of the water.

No doubt the indoor amusements are highly beneficial, and are properly assigned an important place in the management of the insane; and there is equally no doubt that facilities for a daily outing by the side of the lake in the warm weather, are as much appreciated and enjoyed by the patients themselves.

The grading between the women's cottages and the road around the recreation ground, has been so far advanced, that the side walk has been moved out to an equal distance with that in front of the men's cottages, and the whole appearance of this part of the grounds has been much improved.

Although the area of garden land is much too small for the needs of the Institution, the yield of fruits and vegetables has been satisfactory, considering the limited acreage under cultivation. There is fortunately an excellent crop of apples in the orchard this year, and this will in a measure lessen the inconvenience entailed by a shortage in the crop of potatoes on the farm.

Farm.

The under draining which Mr. Boulton has accomplished during the past several years has so much improved the farm land that even in an unusually wet season like the present, the crops, as a rule, have not been materially injured by the frequent rains.

The milk product of the dairy has been satisfactory, and the management of the piggery has been attended with profitable returns. The yield of roots and grain and ensilage has been a good average.

Reconstruction of Laundry.

The work of the laundry reconstruction has been unavoidably delayed by reason of structural changes in that part of the centre building which is to be devoted to this purpose. The Engineer, Mr. Gourley, however, has the work well in hand, and before the end of the present fiscal year it is to be hoped the capacity for laundry work will be nearly doubled, and the greater safety of the patients who are daily engaged in that department will be at the same time secured.

When this reconstruction is completed one of the greatest defects in the original plans of this Institution will be removed, and greatly increased opportunities will be afforded for useful occupation for female patients.

Repainting Kitchen and Men's Cottages.

Cottages B and C, on the male side, and the general kitchen in the centre building have been newly painted during the past year. With such large areas to cover, and only the service of an attendant painter, with the help of a few male patients, this work must necessarily proceed slowly, while there is still great need in other cottages and other buildings for additional painting. This need will be overtaken as rapidly as possible.

Incandescent Arc Lights.

Another great need of this Institution has been supplied during the past year by the installation of a system of incandescent arc lamps for lighting the grounds. For several years past the old Ball system of lighting has been of very little practical use, owing to the defective condition of the dynamo and the worn out condition of the lamps. Late last fall the new lamps were purchased, and during the past summer the Engineer has erected poles and placed the lamps at convenient stations, so that now, for the first time in the history of the Institution, is there anything like adequate service for lighting the grounds.

Slaughter House.

The small slaughter house which was erected during the latter part of last year has afforded the necessary facilities for the butcher to attend to the killing of the cattle on the premises at the farm; and, although the experience has not yet been extended enough to enable me to place before you a comparative statement showing the advantage of the change, there is no doubt that, besides the greater convenience, there will, in a series of years be a substantial saving in money to the institution.

Dormitories in Cottage 5.

When Cottages 5 and E were erected the plastering of the walls in some places was done on wire lath, which allowed the plaster to break easily when subjected to the least interference on the part of the patients, and for sveral years past the walls in one of the halls and some of the dormitories in these cottages have been in a very dilapidated condition.

During the past summer the Mason has been able to entirely renew the lath and plastering in these dormitories in Cottage 5, and they are now for the first time in several years, in a presentable condition. If possible, the walls in Cottage E will be similarly treated during the coming year.

Sidewalks.

With the passage of time, the wooden sidewalks around the Cottages and those leading to the front gate, and to the lake, have become decayed, and, though frequently repaired, in some places they have become dangerous to pedestrians. In the early spring a large section (225 yards) from Cottage 2 to the lake, was replaced by a walk made of stones and cinders, and it is proposed next year, if possible, to make a similar walk along the whole lake front. A small section of granolithic walk is at present being laid down by the mason in front of Cottage E, and if it prove satisfactory it will be extended next year as far as possible in front of the other men's Cottages.

Remodelling Interior of Administration Building.

During the past year a large amount of excellent work has been accomplished in remodelling and renovating the interior of the administration building, which for many years has been in an insanitary condition. By the occupation of a room on the ground floor, for the officers' dining room, it became possible to close the shaft which was formerly used for a hoist for the meals, and this change eliminated a double source of danger, namely, of fire, and the introduction of impure air from the basement into the living rooms of the officers. The closing of the flues leading from the basement into the rooms above and the building of a brick partition in the subway, with the closing of the shaft above mentioned, have effectually

blocked the entrance into this building of a current of warm and contaminated air from the boiler house and basement scullieries, which for so many years had caused so much discomfort to the occupants of these quarters. The work of re-allocating the quarters in this building on a basis in keeping with the rank of the officers occupying them, has also been carried into effect, and the old dilapidated furnishings have been replaced by those of more modern and substantial design and quality. The insanitary lavatories on three floors have also been entirely remodelled and new plumbing introduced throughout, and nearly all of the interior of this building has been repainted.

Increase of Wages.

For many years the Government has been urged by Medical Superintendents to make some provision for increased wages for employees, who have been engaged in the service for many years, and all these officers were gratified when, at the last session of the Legislature, the Honorable, the Provincial Secretary, introduced the necessary legislation to make this desirable change possible. The effect of this annual increase in wages will be wholesome upon the whole staff of male employees, for every man will now feel that with lengthened experience and increased capacity for usefulness, there will at least be some recognition in augmented remuneration.

Adjoining Land.

In my annual report of 1895, in dealing with the subject of sewage disposal, it was shown that the acquisition of more land would make a better method possible. In the annual reports of 1896-97-98 99-1900 and 1901 I have endeavored to point out some of the advantages which would accrue to the Institution from the purchase of some additional land on the west side of this Asylum property; but, while you have given me your concurrence, and the Ministers in charge have personally assented to the desirability of making the purchase, the land has not yet been acquired. For garden and sewage purposes the land would be of greater value to the Institution than it could possibly be to any other owner, and once more I would earnestly recommend that you endeavor to persuade the Government of our urgent need of this property.

School.

It is a matter of common observation to Medical Officers in Asylums that those patients who have passed through the acute stages of the various forms of mental disease, and have reached that condition known as dementia, are capable of instruction in many useful occupations about the Institution.

For many years it has appeared to the writer that this capacity to learn to be useful might with advantage be directed to the acquirement of a moderate degree of proficiency in those preliminary subjects upon which children receive instruction in the common schools.

Although in dementia, the attention, perception, memory, judgment, and initiative, are impaired, it seemed possible that all of these mental qualities might at least be strengthened by systematic instruction and increased energising within the limit of each individual capacity. In many cases idiots and imbeciles are greatly benefited by systematic instruction in the simple elementary branches and in kindergarten work, and why should not demented patients, who are often the mental superiors of these classes, also receive benefit from similar management? Chance favored the experiment, and with the admission of a High School teacher suffering from

delusional insanity, the opportunity offered for testing the theory. Twenty one male pupils were selected, chiefly from the ranks of the dements, and these men spent one hour and a half every morning under the tuition of this accomplished teacher, who only instructed his classes in reading, writing and arithmetic.

The interest manifested by these patient pupils was much greater than was anticipated, and in a month's time the common expression among them was that they greatly enjoyed their little school. The progress made by some of these pupils was beyond our expectation, and one man, a French man, who could formerly speak English, but who could not read it, was able by the end of the winter's course to read everything in the second book and also to write to his friends in English.

Deductions from limited premises are very liable to be misleading, and from this very inconsiderable experience it would not be safe to form any settled conclusions; yet the fact cannot be disputed that these men were happier and more contented because they were interested in and learning something new to them. There is, too, another significant fact connected with this experiment, which, however, may be only accidental, namely, that of the twenty-one patient pupils who attended this school, seven of them have since returned home to their friends.

Sunday Services.

The Clergymen at Mimico continue to conduct the services here on Sunday mornings, and it has now become so much of a habit to expect them that we almost forget the voluntary character of these genelemen's ministrations.

Whenever the Methodist or Presbyterian Clergymen have been unavoidably absent, Rev. Canon Tremayne, with his characteristic unselfishness, has most willingly filled their places. Rev. Dr. Teefy and Rev. Father Murray of St. Michael's College have faithfully attended those of the Roman Catholic faith who have been ill, and Rev. Father Sullivan has conducted services occasionally during the year.

Officers and Employees.

There have been more than the usual number of changes among both the officers and employees during the past year, a good many of the latter having been attracted to other callings by the larger measure of remuneration offered them.

Mrs. Elkin resigned her place as chief female attendant on 31st December, 1901, and Mrs. Fish succeeded her on 1st January, 1902. Dr. Barber was transferred to Rockwood Hospital for Insane at Kingston, and Dr. Forster of that Institution filled his place here on July 2nd, 1902; one month later Dr. McNaughton was appointed to a position at the London Asylum, and Dr. St. Charles of the Hamilton Asylum filled the vacancy here. In conclusion, I have the honor to express my gratitude to yourself for your counsel and co-operation in many subjects of great moment to the institution, and also my appreciation of the earnest devotion of the officers and employees to their various duties.

I have the honor to be, Sir,

Your obedient servant,

N. H. BEEMER.

ANNUAL STATISTICAL REPORT

Of the operations of the Asylum for Insane, Mimico, for the year ending 30th September, 1902.

TABLE No. 1.

Shewing movements of patients in the Asylum for the official year ending September 30th, 1902.

	Male.	Female.	Total.	Male.	Female.	Total.
Remaining, October 1st, 1901				303	302	605
Admitted during year:—						
By Lieutenant-Governor's Warrant	31	14	45			
" Medical Certificate	33	53	86			
				64	67	131
Total number under treatment during year				367	369	736
Discharges during year:—						
As recovered	22	21	43			
" improved	3	3	6			
" unimproved	1		1			
Total number of discharges during year	26	24	50			
Died	18	15	33			
Eloped	1		1			
Transferred	25	31	56			
				70	70	140
Remaining in Asylum, 30th September, 1902				297	299	596
Total number admitted since opening of Asylum				800	783	1,583
" discharged	176	164	340			
" died	196	182	378			
" eloped	13		13			
" transferred	118	138	256			
				503	484	987
" remaining, 30th September, 1902				297	299	596
Number of applications on file	1	10	11			

TABLE No 2.

Shewing the maximum and minimum number of patients resident in the Asylum, the total number of days' stay of patients, and the daily average number of patients in the Asylum, from the 1st October, 1901, to 30th September, 1902.

	Male.	Female.	Total.
Maximum number of patients in residence (on the 26th of October)	306	302	608
Minimum " " " (on the 16th of April)	282	288	570
Collective days' stay of all patients in residence during year	107,764	107,629	215,393
Daily average population	295.24	294.88	590.12

	Admissions of year.			Total admissions since opening.			
	Male.	Female.	Total.	Male.	Female.	Total.	Total.
Social state.							
Married	22	42	64	260	410	670	734
Widowed							
Single	42	25	67	476	306	782	849
Not reported							
Total	64	67	131	736	716	1,452	1,583
Religion.							
Presbyterians	14	19	33	145	123	268	301
Episcopalians	11	14	25	143	159	302	327
Methodists	14	18	32	166	175	341	373
Baptists	2	7	9	25	27	52	61
Congregationalists		2	2	2	2	4	6
Roman Catholics	17	3	20	178	170	348	368
Mennonites							
Quakers							
Infidels							
Other denominations	5	2	7	47	28	75	82
Not reported	1	2	3	30	32	62	65
Total	64	67	131	736	716	1,452	1,583
Nationalities.							
English	9	12	21	88	66	154	175
Irish	3	1	4	110	137	247	251
Scotch	3	4	7	33	45	78	85
Canadian	45	48	93	460	428	888	981
United States	1	1	2	12	15	27	29
Other countries	1	1	2	19	13	32	34
Unknown	2		2	14	12	26	28
Total	64	67	131	736	716	1,452	1,583

TABLE No. 3.

Shewing the Counties from which patients have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total admittance.			Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
Algoma District	2	3	5	8	8	16	21
Brant	.....	1	1	7	3	10	11
Bruce	1	.....	1	2	3	5	6
Carleton	.....	.....	.....	10	11	21	21
Dufferin	2	.....	2	2	1	3	5
Elgin	.....	.....	.....	6	.....	6	6
Essex	1	.....	1	4	2	6	7
Frontenac	.....	.....	.....	9	14	23	23
Grey	.....	.....	.....	17	9	26	26
Haldimand	.....	.....	.....	1	1	2	2
Halton	.....	.....	.....	3	5	8	8
Hastings	.....	1	1	22	30	52	53
Huron	.....	.....	.....	5	4	9	9
Kent	.....	.....	.....	4	.....	4	4
Lambton	.....	.....	.....	5	3	8	8
Lanark	.....	.....	.....	9	8	17	17
Leeds and Grenville	.....	.....	.....	5	9	14	14
Lennox and Addington	.....	.....	.....	4	5	9	9
Lincoln	.....	.....	.....	1	1	2	2
Middlesex	.....	.....	.....	14	5	19	19
Muskoka District	4	2	6	15	9	24	30
Nipissing	3	.....	3	19	6	25	28
Norfolk	.....	.....	.....	3	4	7	7
Northumberland and Durham	.....	1	1	29	29	58	59
Ontario	3	5	8	52	58	110	118
Oxford	.....	.....	.....	9	2	11	11
Parry Sound	2	3	5	15	5	20	25
Peel	4	3	7	31	35	66	73
Perth	1	.....	1	6	2	8	9
Peterborough	2	8	10	46	47	93	103
Prescott and Russell	.....	.....	.....	7	4	11	11
Prince Edward	.....	.....	.....	2	6	8	8
Rainy River	4	1	5	5	3	8	13
Renfrew	.....	.....	.....	4	5	9	9
Simcoe	10	10	20	79	76	155	175
Stormont, Dundas and Glengarry	.....	.....	.....	6	8	14	14
Thunder Bay	2	.....	2	7	3	10	12
Victoria	2	9	11	46	50	96	107
Waterloo	.....	.....	.....	4	2	6	6
Welland	.....	.....	.....	1	2	3	3
Wellington	.....	.....	.....	.....	3	3	3
Wentworth	.....	.....	.....	.....	5	5	5
York	21	20	41	204	227	431	472
Not classed	.....	.....	.....	8	3	11	11
Total admissions	64	67	131	736	716	1,452	1,583

TABLE No. 4.

Shewing the Counties from which warranted cases have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total admissions.			Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
Algoma District	2		2	4	3	7	9
Brant				3	1	4	4
Bruce	1		1	1	1	2	3
Carleton				8	6	14	14
Dufferin				1	1	2	2
Elgin				4		4	4
Essex					1	1	1
Frontenac				3	7	10	10
Parry Sound	2	1	3	11	7	18	18
Haldimand				12	3	15	18
Halton		1	1	1		1	1
Hastings				17	21	38	39
Huron				1	1	2	2
Kent				4		4	4
Lambton				4	3	7	7
Lanark				7	6	13	13
Leeds and Grenville				3	5	8	8
Lennox and Addington				3	5	8	8
Nipissing	1		1	14	1	15	16
Middlesex				7	1	8	8
Muskoka District	2	1	3	8	2	10	13
Norfolk				2	1	3	3
Northumberland and Durham				16	14	30	30
Ontario	1	2	3	31	13	44	47
Oxford				7	2	9	9
Peel				21	17	38	38
Perth	1		1	3		3	4
Peterborough		1	1	33	19	52	53
Prescott and Russell				7	3	10	10
Prince Edward				2	2	4	4
Rainy River	3	1	4	3	3	6	10
Renfrew				4	3	7	7
Simcoe	3	1	4	35	20	55	59
Stormont, Dundas and Glengarry	2		2	3	4	7	9
Victoria	1	2	3	33	26	59	62
Thunder Bay				6	2	8	8
Waterloo				3	1	4	4
Welland				2	2	4	4
Wellington					1	1	1
Wentworth					3	3	3
York	12	4	16	137	137	274	290
Not classed				1	3	4	4
Total admissions	31	14	45	465	351	816	861

TABLE No. 5.

Shewing the length of Residence in the Asylum of those discharged during the year.

No.	Initials.	Sex.	When admitted.	When discharged.	Remarks.
1	W. J. McL	M	August 13, 1900	October 1, 1901	Recovered.
2	L. S	F	December 1, "	October 24, "	"
3	J. B	M	February 20, 1901	November 1, "	"
4	C. J. A	M	July 11, "	November 6, "	"
5	C. K	F	July 5, "	November 12, "	"
6	B. B	M	May 11, 1900	November 14, "	"
7	D. C	M	July 3, 1901	November 14, "	"
8	P. M. M	F	January 31, 1899	November 14, "	"
9	M. C	F	July 4, 1901	December 4, "	Improved.
10	S. D	M	April 20, "	January 6, 1902	Recovered.
11	A. Z	F	February 6, "	January 7, "	"
12	E. J. W	M	November 8, 1899	January 20, "	"
13	T. D. McC	M	April 21, 1900	January 24, "	Improved.
14	A. L	M	May 1, 1901	January 28, "	Recovered.
15	W. S	M	February 28, 1900	January 29, "	Improved.
16	J. M	M	July 24, "	February 4, "	Recovered.
17	D. M	M	June 26, 1901	February 8, "	"
18	E. H	F	November 14, 1900	February 13, "	"
19	D. B	M	July 6, 1901	March 7, "	"
20	H. A	M	July 8, "	March 8, "	"
21	A. D	F	April 4, 1900	March 10, "	"
22	E. N	F	April 5, 1901	April 1, "	"
23	B. F	F	September 18, "	May 1, "	"
24	C. A	M	February 18, 1902	May 12, "	"
25	F. M	F	December 10, 1900	May 19, "	"
26	F. G	M	January 20, 1902	June 9, "	"
27	M. J	F	February 8, "	June 17, "	"
28	R. S	M	May 3, 1899	June 20, "	"
29	W. B	M	December 7, 1900	June 24, "	"
30	M. E. T	F	March 26, 1902	July 7, "	"
31	M. T	F	November 23, 1900	July 8, "	"
32	W. A. S	M	March 12, 1902	July 9, "	"
33	J. A	F	October 23, 1901	July 16, "	"
34	E. L	M	November 30, "	July 22, "	"
35	J. de G	M	May 14, 1902	August 6, "	Unimproved.
36	M. C	F	August 10, 1901	August 7, "	Recovered.
37	L. A	M	April 20, 1900	August 8, "	"
38	J. B., jr	M	August 23, 1901	August 8, "	"
39	C. N	M	October 16, 1897	August 8, "	"
40	A. T	M	February 25, 1902	August 11, "	Improved.
41	M. M. F	F	April 17, "	August 11, "	"
42	E. R. Q	F	January 23, "	August 22, "	Recovered.
43	A. S	F	February 15, 1901	September 6, "	"
44	E. S. S	F	January 3, 1902	September 15, "	"
45	J. F	F	May 27, "	September 16, "	Improved.
46	J. P	F	March 7, 1901	September 25, "	Recovered.
47	A. S	F	August 1, 1899	September 30, "	"
48	R. J. E	M	May 7, 1901	September 30, "	"
49	M. B	F	March 18, 1902	September 30, "	"
50	C. M. W	F	May 22, 1902	September 30, "	"

TABLE No. 6.

Shewing age, length of residence and proximate cause of death of those who died during the year ending 30th September, 1902.

No.	Initials.	Sex.	Age.	Date of death.	Residence in Asylum.			Proximate cause of death.
					Years.	Months.	Days.	
1	E. B	F	47	October 18, 1901 ..	.....	9	29	Epilepsy.
2	J. H.....	M ...	77	November 17, " ..	.....	2	5	Senile debility.
3	E. H.....	F	47	November 19, " ..	.....	6	3	Phthisis.
4	J. J. B.....	M ...	70	November 22, " ..	.....	4	17	Ex. of mania
5	E. A. J.....	F	32	November 30, " ..	.....	3	30	Apoplexy.
6	S. A. K.....	F	36	December 8, " ..	.....	4	19	Ex. of acute mel.
7	C. H.....	M ...	36	December 24, " ..	.....	6	10	Ex. of mania.
8	M. C	F	61	December 28, " ..	10	10	3	Apoplexy.
9	W. J. W.....	M ..	40	December 30, " ..	3	10	13	Epilepsy.
10	T. B	M ...	58	January 1, 1902 ..	..	2	25	Ex. of mania.
11	E. H.....	F	76	January 2, " ..	6	11	25	Ex. of dementia
12	J. S.....	M ...	57	January 4, " ..	11	3	5	Epilepsy.
13	D. B. H	M ...	57	January 6, " ..	.....	2	19	Ex. of melancholia.
14	P. D.....	M ...	48	January 8, " ..	9	8	20	Cardiac disease.
15	A. C	F	44	January 10, " ..	5	1	28	Pneumonia.
16	W. K....	M ...	60	January 14, " ..	2	8	5	General paresis.
17	J. B	M ...	46	January 21, " ..	4	9	14	Phthisis.
18	E McG.	F	46	January 29, " ..	9	10	22	Sarcoma.
19	W. R.....	M ...	66	February 1, " ..	...	....	7	Ex. of mania.
20	A. O	F	40	February 17, " ..	.....	1	2	General paresis.
21	S. G	F ...	64	February 18, " ..	1	2	11	Ex. of mania.
22	M. D..... .	F	23	March 23, " ..	2	7	19	Phthisis.
23	N. B.....	M ...	46	April 11, " ..	....	9	6	General paresis.
24	M H.	F	53	April 28, " ..	11	5	15	Tuberculosis.
25	E. W. K ...	M ...	34	May 30, " ..	.. ...	....	4	Ex. of melancholia.
26	C. H. B.....	M ...	52	April 1, " ..	...	8	26	Cerebral Arthritis.
27	T. McA. ...	M . .	46	June 3, " ..	9	3	2	General debilty.
28	R. S	M ...	24	July 31, " ..	3	.....	.....	Cerebral hæmorrhage.
29	J. D	F	62	August 7, " ..	7	6	22	Cancer of uterus.
30	A. B	F	62	August 25, " ..	11	8	2	Can. of Com. Bile Duct
31	M. J. McB....	F	31	September 15, " ..	1	9	17	Phthisis.
32	W. C	M ...	74	September 20, " ..	....	2	7	Exh. of melancholia.
33	E. I.....	F	51	September 24, " ..	1	.....	21	Cerebral hæmorrhage.

TABLE No. 7.

Shewing trades, callings and occupations of patients admitted into the Asylum.

Trades, callings and occupations.	During the year.			During former years.			Total.
	Males.	Females.	Total.	Males.	Females.	Total.	
Agents				3		3	3
Architects				1		1	1
Artists		1	1	1		1	2
Book-keepers	1		1	7		7	8
Bakers				2		2	2
Butchers				1		1	1
Blacksmiths				9		9	9
Brass-finishers				1		1	1
Brewers				1		1	1
Builders				1		1	1
Broom-makers				1		1	1
Bookbinders		1	1		1	1	2
Brickmakers				1		1	1
Commercial travellers	1		1	7		7	8
Coopers				4		4	4
Carpenters				24		24	24
Clerks	2		2	22	1	23	25
Clergymen				4		4	4
Cooks				2		2	2
Carders				1		1	1
Cigarmakers				1		1	1
Coachmen				1		1	1
Civil servants				1		1	1
Domestic servants, all kinds	1	9	10		134	134	144
Dressmakers		3	3		14	14	17
Druggists				7		7	7
Doctors				5		5	5
Engineers				6		6	6
Editors				1		1	1
Farmers	16		16	202		202	218
Fishermen				2		2	2
Furriers					1	1	1
Gardeners	2		2	6		6	8
Gentlemen	1		1				1
Gunsmiths				1		1	1
Hatters				1		1	1
Harness-makers				6		6	6
House-keepers		45	45		378	378	423
Inn-keepers				2		2	2
Jewellers				2		2	2
Labourers	21		21	210	1	211	232
Laundresses					1	1	1
Lawyers				2		2	2
Lumbermen	4		4	11		11	15
Milliners					4	4	4
Masons				5		5	5
Machinists	1		1	12		12	13
Moulders	1		1	4		4	5
Merchants	2		2	8		8	10
Music teachers					3	3	3
Marble cutters				1		1	1
No occupation		3	3	27	73	100	103
Nurses		1	1		6	6	7
Not stated				38	33	71	71
Other occupations				3	2	5	5
Prostitutes				12		12	12
Painters	2		2	5	1	6	8
Peddlers				2		2	2
Stenographer				2	1	3	3
Spinisters					30	30	30
Sailors				7		7	7
Students				10	6	16	16
Spinners					1	1	1
Soda-water manufacturers				1		1	1

TABLE No. 7.—*Continued.*

Trades, callings and occupations.	During the year.			During former years.			Total.
	Males.	Females.	Total.	Males.	Females.	Total.	
Showmen				6		6	6
Shoemakers					11	11	11
Seamstresses		2	2				2
Station masters	1		1				1
Soldiers				1		1	1
Surveyors				3		3	3
Ship builders				1		1	1
Teachers		1	1	13	11	24	25
Tailors	3		3	10	2	12	15
Tanners				1		1	1
Teamsters				1		1	1
Watchmakers	1		1				1
Weavers					1	1	1
Wheelwrights				2		2	2
Waggon-makers				2		2	2
Unknown or other employments	3	1	4				4
Totals	63	67	130	737	716	1,453	1,583

TABLE No. 8.

Shewing causes of insanity.

Causes of insanity. In respect of the admissions for the year ending 30th September, 1892.	Number of instances in which each cause was assigned.					
	As predisposing cause.			As exciting cause.		
	Male.	Female.	Total.	Male.	Female.	Total.
Moral.						
Domestic troubles, including loss of relatives or friends				1	2	3
Religious excitement					1	1
Adverse circumstances, including business troubles				5		5
Mental anxiety, "worry"				5	6	11
Fright and nervous shocks					2	2
Physical.						
Intemperance in drink	2	1	3	2		2
Venereal disease		1	1			
Self-abuse, sexual				3		3
Over-work				4	2	6
Sunstroke				1		1
Accident or injury	2		2	1	4	5
Pregnancy					1	1
Puerperal		1	1		4	4
Puberty and change of life		1	1			
Uterine disorders		1	1		2	2
Brain disease, with epilepsy	4	2	6	6	3	9
Other forms of brain disease	1		1		1	1
Other bodily diseases or disorders, including old age	3	2	5	1	6	7
Fevers		1	1		2	2
Hereditary.						
With other ascertained cause in combination	5	15	20			
With other combined cause not ascertained	7	13	20			
Congenital.						
With other ascertained cause in combination	2		2			
Unknown	38	29	67	35	31	66
Total	64	67	131	64	67	131

TABLE No. 9.

Showing the probational discharges and the result thereof.

Reg. No.	Sex.	Initials.	Date of probational discharge.	Term of probation.	Result.
1430	M	C. J. A	October 1, 1901	1 month	Discharged recovered.
1328	F	M. J. E	" 8, "	2 weeks	Returned.
1371	F	A. Z.	" 21, "	1 month	Discharged recovered.
1330	M	B. A.	" 26, "	1 "	Returned.
1428	M	D. B.	November 21, "	1 "	Discharged recovered.
1335	F	E. H.	" 25, "	2 "	" "
1304	M	J. M.	December 20, "	1 "	" "
1420	M	D. M	" 24, "	1 week	" "
1228	M	E. J. W	" 24, "	1 month	" "
1408	M	A. L.	" 28, "	1 "	" "
1195	F	A. D K	" 24, "	1 week	Returned.
1382	F	G. M	" 25, "	1 "	"
1263	F	A. D.	" 30, "	2 months	Discharged recovered.
1208	F	A. S.	January 27, 1902	6 "	" "
1448	F	B. F.	" 27, "	2 "	" "
1339	F	E. N.	" 30, "	2 "	" "
1048	M	C. N.	March 24, "	4 "	" "
1481	M	F. G.	" 28, "	1 month	" "
1458	F	I. A.	April 1, "	2 months	" "
1344	F	M. T.	" 14, "	2 "	" "
1376	F	A. S	May 1, "	2 "	" "
1442	F	M. I. B	" 12, "	2 "	Returned.
1264	M	L. A.	" 10, "	2 "	Discharged recovered.
1491	F	M. J.	" 17, "	1 month	" "
1181	M	R. S	" 19, "	1 "	" "
1353	M	W. B	" 20, "	1 "	" "
1470	F	L. G	" 20, "	2 months	Returned.
1443	M	J. B.	" 20, "	2 "	Discharged recovered.
1440	F	M. C	" 23, "	2 "	" "
1497	M	A. T.	" 23, "	2 "	" improved.
1498	M	G. McK	" 23, "	1 week	Returned.
1431	F	J. H.	" 29, "	3 months	Still out.
1500	M	W. A. S.	June 11, "	1 month	Discharged recovered.
1158	F	A. H	" 11, "	1 week	Returned.
1211	F	I. McF	" 19, "	1 month	"
1361	M	D. B.	" 19, "	1 "	"
1269	M	J. M.	" 28, "	1 week	"
1498	M	G. McK	" 30, "	1 "	"
1203	F	M. J. C	" 30, "	2 months	Discharged recovered.
1389	F	J. G.	July 2, "	2 "	" "
1469	M	E. L. C	" 9, "	1 month	" "
1294	M	S. C.	" 12, "	2 months	Still out.
1411	M	R. J. E	" 12, "	2 "	Discharged recovered.
1355	M	F. C.	" 19, "	1 month	Still out.
1530	F	C. M. W.	" 19, "	2 months	Discharged recovered.
1503	F	M. B.	" 21, "	2 "	" "
1382	F	G. M	" 25, "	2 "	Still out.
1462	M	H. M. G.	August 6, "	2 "	"
1158	F	A. H	" 6, "	1 month	Returned.
1495	M	J. A. B	" 7, "	2 months	Still out.
739	M	P. G.	" 11, "	2 "	"
1522	M	J. C.	" 14, "	2 "	"
1010	F	A. M. G.	September 6, "	2 "	"
1362	M	D. B.	" 6, "	2 "	"
1414	M	R. W.	" 8, "	3 "	"
1188	M	I. P	" 13, "	3 "	"
1463	M	C. McC.	" 15, "	2 "	"
1498	M	G. McK.	" 16, "	2 "	"

SUMMARY OF PROBATIONAL DISCHARGES.

	Males.	Females	Total.	Males.	Females	Total.
Number to whom probational leave was granted				32	26	58
Discharged recovered	15	15	30			
" improved	1		1			
Returned to asylum	5	8	13			
Absent on probation on 30th September, 1892	11	3	14			

TABLE No. 10.

Shewing in *quinquennial* period, the ages of those admitted, recovered and died during the year.

Ages.	Admitted.			Recovered.			Died.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
From 10 to 15 years									
" 15 " 20 "	2	2	4		2	2			
" 20 " 25 "	3	6	9	4	4	8	1	1	2
" 25 " 30 "	8	9	17	4	2	6			
" 30 " 35 "	15	9	24	5	5	10	2	1	3
" 35 " 40 "	7	9	16	1	4	5	1	1	2
" 40 " 45 "	11	8	19	2	1	3	1	2	3
" 45 " 50 "	4	4	8	2	1	3	4	3	7
" 50 " 55 "	3	4	7	1	1	2	1	2	3
" 55 " 60 "	4	4	8	3		3	3		3
" 60 " 65 "	1	7	8		1	1	1	4	5
" 65 " 70 "	1	1	2				1		1
" 70 " 75 "	1		1				2		2
" 75 " 80 "		3	3				1	1	2
" 80 " 85 "		1	1						
" 85 " 90 "									
" 90 " 95 "									
Unknown	4		4						
Totals	64	67	131	22	21	43	18	15	33

TABLE No. 11.

Periods.	Duration of insanity prior to admission.	Length of Asylum residence of those remaining in Asylum on 30th Sept.	Periods of treatment of those who were discharged cured during the year.	Periods of treatment of those who were discharged improved during the year.	Periods of treatment of those who were discharged unimproved during the year.
Under 1 month	21	11			
From 1 to 2 months	16	14			
" 2 " 3 "	12	9	1		1
" 3 " 4 "	9	10	3	2	
" 4 " 5 "	7	10	5		
" 5 " 6 "	7	13		2	
" 6 " 7 "	6	11	2		
" 7 " 8 "	3	4	4		
" 8 " 9 "	3	16	6		
" 9 " 10 "	2	5			
" 10 " 11 "		5	1		
" 11 " 12 "	9	3	4		
" 12 " 18 "	9	27	5		
" 18 months to 2 years	8	39	6	2	
" 2 to 3 years	6	46	4		
" 3 " 4 "	5	36	1		
" 4 " 5 "	1	27	1		
" 5 " 6 "		25			
" 6 " 7 "		24			
" 7 " 8 "		53			
" 8 " 9 "		22			
" 9 " 10 "	1	19			
" 10 " 15 "	2	167			
" 15 " 20 "	1				
" 20 years and upwards	3				
Totals	131	596	43	6	1

TABLE No. 12.

Shewing the nature of employment and the number of day's work performed by patients during the year.

Nature of employment.	Number of patients who worked.	Days worked.		
		Male.	Female.	Total.
Carpenter shop	5	1,415		1,415
Tailor's shop	5		1,206	1,206
Shoe shop	2	582		582
Engineer's shop	9	2,740		2,740
Blacksmith's shop				
Mason work	3	881		881
Repairing roads				
Wood yard and coal shed				
Bakery	3	973		973
Laundry	20	1,141	5,059	6,200
Dairy				
Butcher's shop and slaughter house				
Piggery				
Painting	4	1,043		1,043
Farm	10	3,153		3,153
Garden	11	3,498		3,498
Grounds	25	7,902		7,902
Stable	4	1,362		1,392
Kitchen	15	2,066	1,983	4,049
Dinning rooms	15	5,421		5,421
Officers' quarters	12	1,853	1,586	3,439
Sewing rooms	8		2,594	2,594
Knitting	35	203	10,672	10,875
Spinning				
Mending	21		6,533	6,533
Wards	21		6,580	6,580
Halls	1	48		48
Storeroom	1	361		361
General	230	48,900	34,108	83,008
Subway	8	2,372		2,372
Special	40	8,965	4,385	13,350
Sewing	32		10,712	10,712
Total	540	94,879	85,418	180,297

TABLE No. 13

Shewing the Counties and Districts from which the patients remaining in residence on the 30th September, 1902, were originally received.

Counties and districts.	Males.	Females.	Totals.	Counties and districts.	Males.	Females.	Totals.
Algoma District	7	6	13	Norfolk	1	2	3
Brant	2	2	4	Northumberland	5	2	7
Bruce	1	2	3	Ontario	24	31	55
Carleton				Oxford	4	1	5
Dufferin	2	2	4	Parry Sound District	9	5	14
Dundas				Peel	11	17	28
Durham	4	2	6	Perth	4		4
Elgin	2		2	Peterborough	20	24	44
Essex		2	2	Prescott			
Frontenac	1	1	2	Prince Edward		1	1
Glengairy				Rainy River District	8	4	12
Grenville				Renfrew			
Grey	10	5	15	Russell			
Haldimand	2	1	3	Simcoe	34	31	65
Halton		1	1	Stormont			
Hastings	4	4	8	Thunder Bay District	5	1	6
Huron	1	1	2	Victoria	23	28	51
Kent	2		2	Waterloo	2	2	4
Lambton	2	1	3	Welland		1	1
Lanark				Wellington		1	1
Leeds				Wentworth		3	3
Lennox and Addington				York	86	105	191
Lincoln	1		1	Not classed, unknown, etc			
Middlesex	2	3	5				
Muskoka District	5	4	9	Total	297	299	596
Nipissing District	13	3	16				

TABLE No. 14.

Patients transferred to other asylums.

Initials of persons transferred.	Age.	Sex. Male.	Sex. Female.	County originally admitted from.	Nationality. Canadian.	Nationality. English.	Nationality. Irish.	Nationality. Scotch.	Nationality. United States.	Nationality. Other countries or unknown.	Religious denomination. Church of England.	Religious denomination. Roman Catholic.	Religious denomination. Presbyterian.	Religious denomination. Methodist.	Religious denomination. Other denominations.	Social state. Married or widowed.	Social state. Unmarried.	Duration of insanity prior to admission. Years.	Duration of insanity prior to admission. Months.	Admitted by Warrant.	Admitted by Certificate.	Occupation.	Asylum transferred to.
M. B	63	....	F	York	....	....	1	....	....	....	1	....	....	....	....	M	....	9	8 27	.....	C	Not stated	Cobourg.
E. C	63	....	F	"	....	1	....	....	....	....	1	....	....	....	....	M	....	11	2	W	.....	Housekeeper	"
M. C	54	....	F	Halton	....	....	....	1	....	....	....	....	1	....	....	....	S	9	.....	.....	C	Servant	"
F. D	52	....	F	Northumberland	1	....	....	....	....	....	....	....	....	....	1	M	....	11	.....	W	.....	School teacher	"
M. D	78	....	F	Ontario	....	....	....	1	....	....	....	....	....	1	..	M	....	8	4	W	.....	Home duties	"
J. D	55	....	F	Brant	1	....	....	....	....	....	....	....	....	1	....	....	S	11	2	W	.....	Servant	"
A. M. D	44	....	F	York	1	....	....	....	....	....	1	....	....	....	....	....	S	9	10	.....	C	Home duties	"
A. F	41	....	F	"	....	1	....	....	....	....	1	....	....	....	....	....	S	11	....	W	.....	Servant	"
E. F	68	....	F	Lincoln	1	....	....	....	....	....	1	....	....	....	....	....	S	7	.....	.....	C	Governess	"
M. F	51	....	F	Grey	1	....	....	....	....	....	....	....	....	1	....	....	S	7	.....	W	.....	Domestic	"
S. A. G	49	....	F	York	....	1	....	....	....	....	....	....	....	1	....	....	S	9	10	W	.....	Servant	"
M. H	38	....	F	Peterborough	1	....	....	....	....	..	....	1	....	....	....	M	....	9	....	W	.....	"	"
A. J	47	....	F	York	....	....	1	....	....	....	....	1	....	....	....	M	....	11	2	W	.....	"	"
B. J	52	....	F	Peterborough	....	....	1	....	....	....	....	1	....	....	....	....	S	9	8	W	.....	None	"
E. L	51	..	F	Hastings	1	....	....	....	....	....	....	....	1	....	....	M	....	10	10	W	.....	Home duties	"
S. L	47	....	F	York	1	..	....	....	....	....	....	....	....	1	....	....	S	11	2	W	.....	Servant	"
B. M	66	..	F	Durham	....	....	....	1	....	....	....	....	1	....	....	....	S	11	2	.....	C	"	"
M. M	45	....	F	Northumberland	....	....	....	1	....	....	....	....	1	....	....	....	S	8	4	W	.....	"	"
M. McM	54	....	F	York	....	....	1	....	....	....	....	1	....	....	....	M	....	11	2	W	.....	Laundress	"
R. McK	46	....	F	"	....	..	1	....	....	....	....	1	....	....	....	....	S	10	1	W	.....	Washwoman	"
B. N	44	....	F	"	1	....	....	....	..	....	....	1	....	....	.	M	....	11	....	W	.....	Housekeeper	"
M. N	64	....	F	"	....	....	....	1	....	....	....	....	....	....	1	....	S	10	9	W	.....	Servant	"
S. R	49	....	F	"	1	....	....	....	....	....	....	....	....	....	1	....	S	9	5	W	.....	None	"
M. R	44	....	F	"	1	....	....	....	....	....	....	1	....	....	....	M	....	11	....	W	.....	Housekeeper	"
R. S	52	....	F	Durham	1	....	....	....	....	....	1	....	....	....	....	....	S	11	....	W	.....	None	"
M. S	47	....	F	Wentworth	....	....	....	....	1	....	1	....	....	....	....	....	S	9	....	W	.....	Domestic	"
L. S	47	....	F	Peel	1	....	....	....	....	....	....	....	....	1	....	....	S	9	8	W	.....	None	"
A. V	45	....	F	Ontario	1	....	....	....	....	....	....	....	....	....	1	M	....	11	2	W	.....	Home duties	"
M. A. W	47	..	F	York	....	1	....	....	....	....	1	....	....	....	....	M	....	11	2	W	.....	Servant	"
S. W	53	....	F	"	....	1	....	....	....	....	1	....	....	....	....	....	S	11	.....	W	.....	Domestic	"
J. W	37	....	F	Ontario	1	....	....	....	....	....	....	....	....	1	....	....	S	9	8	W	C	Home duties	"

TABLE No 14 *Concluded.*

Patients transferred to other asylums.

Initials of persons transferred.	Age.	Sex. Male.	Sex. Female.	County originally admitted from.	Nationality. Canadian.	English.	Irish.	Scotch.	United States.	Other countries or unknown.	Religious denominations. Church of England.	Roman Catholic.	Presbyterian.	Methodist.	Other denominations.	Social state. Married or widowed.	Unmarried.	Duration of insanity prior to admission. Years.	Months.	Admitted by Warrant.	Certificate.	Occupation.	Asylum transferred to.
C. B	58	M		Middlesex		1					1						S	9	6		C	None	Brockville.
A. C.	46	M		York		1					1						S	11	6	W		Laborer	"
F. D.	50	M		"	1							1					S	12	2	W		Printer	"
S. G	61	M		Ontario		1									1		S	12	2	W		Druggist	"
D. G	47	M		York	1									1			S	12	2		C	None	"
C. H.	49	M		Ontario	1									1			S	12	2	W		Laborer	"
H. H	38	M		"	1						1						S	9	2	W		Cabinet maker	"
J. H.	52	M		York			1					1					S	8	11	W		Farmer	"
R. C. J	40	M		Essex						1					1		S	9	6	W		Not stated	"
A. L	42	M		York	1							1					S	11	10	W		Cook	"
D. L.	32	M		Peterboro	1							1					S	7	8	W		Laborer	"
W. M	50	M		"	1								1			M		9	6	W		"	"
W. McF	36	M		York				1					1				S	12	2	W		"	"
J. I.	44	M		"				1					1				S	15	11	W		"	"
J. O. M	47	M		"				1				1					S	15	9	W		"	"
D. S	56	M		Peel		1					1						S	15	11	W		Carpenter	"
A. T.	54	M		York	1										1		S	15	12	W		Laborer	"
W. W.	37	M		Leeds	1						1					M		15	1		C	Engineer	"
G. C	56	M		Victoria	1								1				S	15	12	W		Laborer	"
D. A.	37	M		Peel	1								1				S	15	12		C	Farmer	"
D. I	41	M		Grey			1						1				S	15	12		C	"	"
W. B	26	M		Thunder Bay	1										1		S	1	6	W		Laborer	"
J. T	42	M		York					1		1					M		15	9	W		Silverplater	"
A. G.	47	M		Peterborough	1							1					S	15	12	W		Lumberman	"
A. McK	60	M		York	1								1				S	15	11		C	Student	"

TABLE 15.

Work done in Laundry for year ending September 30th, 1902.

Articles.	Number.	Articles.	Number.
Aprons	10,899	Petticoats	4,163
Blankets	2,993	Pillow cases	29,509
Bed ticks	82	Quilts	84
Blouses	749	Rugs	1,554
Collars	4,014	Sheets	49,202
Cuffs	2,424	Shirts	11,681
Counterpanes	1,850	Socks	10,526
Curtains	777	Stockings	156
Coats	1,087	Trousers	902
Cushion covers	394	Table napkins	5,797
Clothes bags	324	Tidies	255
Combination suits	711	Toilet covers	1,527
Chemises	11,351	Table cloths	7,357
Dusters	647	Towels, hand	6,277
Dresses	5,379	do roller	5,276
Drawers	7,892	do bath	9,233
Guernseys	4,204	do dish	3,786
Handkerchiefs	6,390	Uniforms	1
Lambrequins	54	Vests	382
Neckties	154	Waists	8
Night shirts	732	Drapes	17
Night dresses	3,187	Corsets	217
Overalls	1,020		
Pillowshams	958	Total	216,182

TABLE 16.

Washing done in Cottages from October 1st, 1901, to September 30th, 1902.

Articles.	Male Cottages.	Female Cottages.	Total.	Articles.	Male Cottages.	Female Cottages.	Total.
Aprons	204	7,719	7,923	Pillow ticks	21	9	30
Blankets	264	137	401	Pants	610		610
Bed ticks	79		79	Petticoats		3,247	3,247
Bath towels	78	11,037	11,115	Quilts	15	20	35
Cushion covers		181	181	Rugs	13		13
Chemises		10,281	10,281	Roller towels	153	351	504
Counterpanes	6	48	54	Skirts, white		9	9
Curtains, pairs		190	190	Sheets	395	420	815
Coats	346		346	Stockings		14,904	14,904
Combination suits		233	233	Socks	5,564		5,564
Drawers	1,477	9,715	11,192	Shirts, cotton	1,262		1,262
Diaper towels	265	1,528	1,793	do flannel	1,179		1,179
Dresses		2,692	2,692	Shirt waists		200	200
Dish towels	10,216	10,434	20,650	Tidies		2,656	2,656
Handkerchiefs	1,243	6,776	8,019	Ties	164	82	246
Mattress covers	31	25	56	Toilet covers		304	304
Matts	6	121	127	Table covers		49	49
Napkins, table		3,194	3,194	Table cloths		431	431
Nightgowns		5,073	5,073	Uniforms		178	178
Nightshirts	95		95	Underwaists		588	588
Overall pants	399		399	Vests	23	1,235	1,258
" jackets	33		33				
Pillowcases	248	178	426	Totals	24,389	94,245	118,634

TABLE No. 17.

Work done in Sewing Room for year ending September 30th, 1902.

Articles.	Cut.	Made.	Repaired.	Articles.	Cut.	Made.	Repaired.
Aprons	611	256	19	Night shirts	4	4	6
Blouses	11	8		Pillow cases	514	210	13
Box covers	8			Pillow shams	13	13	
Blankets			28	Petticoats	51	21	6
Curtains, pairs	87	61	11	Quilts			6
Cuffs	61	15		Rugs	101		
Cushions		17	22	Shirts	391	271	498
Collars	14	14		Sheets	146	106	22
Caps	120	6		Sash curtains	70	42	
Carpets			8	Splashers	8	3	
Candy bags	630	630		Shrouds	54	54	
Clothes bags	8	8		Screens	1	2	
Chemises	36	12		Saddle bags	11		
Combinations	17	17		Sofa cushion covers	43	18	17
Cosy corner covers	2	2		Table cloths	141	111	8
Counterpanes		6	4	Table covers	12	9	
Dresses	359	23	2	Table napkins	96	96	
Drawers	311	61	187	Toilet covers	88	52	
Dusters	36	36		Tea cosy	3	1	
Dust sheets	12	12		Towels, dish	125	17	
Drawn work pieces		3		Towels, roller	162	24	
Hemstitched		38		Tack-downs	3	3	
Lambrequins	2	2	21	Uniform dresses	44	2	
Mattress covers	90	90	2	Uniform blouses	38		
Mantel drapes	44	9		Under-waists	8	8	
Neckties	160	112					
Night gowns	178	114		Totals	4,925	2,619	880

TABLE No. 18.

Sewing done in Cottage from October 1st, 1901, to September 30th, 1902.

Articles.	Made.			Repaired.		
	Male Cottages.	Female Cottages.	Totals.	Male Cottages.	Female Cottages.	Totals.
Aprons		170	170	215	3,151	3,366
" uniform		73	73			
Blankets				191	655	846
Bed ticks				254	185	439
Braces				48		48
Blouses		7	7			
Box covers		13	13			
Bath towels					367	367
Blinds					71	71
Counterpanes				88	99	187
Combination suits					409	409
Chemises		38	38		5,893	5,893
Cuffs, uniform		8	8			
Curtains, pairs		69	69		207	207
Cushion covers		40	40		139	139
Coats				694		694
Caps				25		25
Dresses		360	360		4,677	4,677
Dish towels		96	96	2,134	35	2,169
Drawers		160	160	1,513	4,751	6,264
Diaper towels				30	125	155
Handkerchiefs				177		177
Lace, yards		81	81			
Mattress covers				76	925	1,001

TABLE No. 18.—*Continued.*

Sewing done in Cottage from October 1st, 1901, to September 30th, 1902.

Articles.	Made.			Repaired.		
	Male Cottages.	Female Cottages.	Totals.	Male Cottages.	Female Cottages.	Totals.
Mitts				52		52
Matts	35	23	58		353	353
Mattresses, re-made				50		50
Mantel drapes		38	38			
Night gowns		63	63		2,835	2,835
Night shirts				53		53
Neckties		48	48	9		9
Overcoats				4		4
Overall, pants				794		794
Overall, jackets				55		55
Pants				950		950
Pillow cases		293	293	125	1,622	1,747
Pillow ticks				67	503	570
Petticoats		58	58		3,295	3,295
Pillow shams					52	52
Quilts					391	391
Roller towels		138	138	52	733	785
Rugs, canvas		96	96	12	1,224	1,236
Stockings		251	251		7,787	7,787
Socks	33	448	481	3,599		3,599
Shirts, flannel				1,091		1,091
Saddle bags		11	11			
Shirts, cotton		124	124	1,868		1,868
Sheets		240	240	90	2,024	2,114
Splashers		5	5			
Tablecloths		39	39		709	709
Table covers		3	3		5	5
Tidies		140	140		1,573	1,573
Table napkins					143	143
Toilet covers		31	31			
Under vests					451	451
Uniform dresses		36	36		50	50
" waists		14	14			
" caps		59	59			
" vests				41		41
Totals	68	3,273	3,341	14,357	45,439	59,796

TABLE No. 19.

Work done in tailor shop from October 1st, 1901, to September 30th, 1902.

Articles.	Made and cut.	Re-paired.	Totals.	Articles.	Made and cut.	Re-paired.	Totals.
Aprons		674	674	Overcoats	2	90	92
Blinds stitched		112	112	Overall pants	125	2,071	2,196
Coats, serge, uniform	20		20	" jackets	69	1,567	1,636
" shirting "	37		37	Pants, serge uniform	38		38
" tweed	123	1,188	1,311	" tweed	112	1,846	1,958
" Russil cord unif'm.	2		2	Robes		21	21
Chest protectors	2		2	Shirts, flannel	241		241
Drawers, flannel	234		234	Vests	86	928	1,014
Dynamo covers	2		2				
Flannel belts	2		2	Totals	1,095	8,497	9,592

TABLE No. 20.

Work done in shoe shop from October 1st, 1901, to September 30th, 1902.

Articles.	Made and cut.	Re-paired.	Totals.	Articles.	Made and cut.	Re-paired.	Totals.
Braces	159	8	167	Razor straps	3		3
Cricket pads		5	5	Skate "	50		50
" balls		2	2	Straps on golf boxes	9		9
Cushions		1	1	Slippers	134	208	342
Harness, pieces		66	66	Shoes and boots	32	386	418
Long boots, prs	13		13				
Lace " "	19		19	Totals	419	677	1,096
Leather trunks		1	1				

TABLE No. 21.

Work done in mason's department for year ending September 30th, 1902.

Name.	New work.	Re-paired.	Name.	New work.	Re-paired.
Cement floors laid	90 sq. yds.		Mantle built in administration building		1
Building foundation for weigh scales	2		Door cut in sewing room		1
Cottages, walls repaired		4	Piers built for verandah	11	
Door cut in electric room		1	Chimneys built at farm	2	
Boilers		1	Brown stone cut and laid	50 ft.	
Windows cut and built, superintendent's house		1	Engine bed built in boiler room		1
Cornice in administration b'ldg		1	Foundation built for engine house at farm	1	
Door cut in coal house		1	Manhole at Farm		1
Engine bed at pump house		1	Door cut in administr'n b'lding		1
" farm	1		Doorway built in subway		1
Plastering in cottage 5	500 yds.				

TABLE No. 22.

Work done in carpentering department from October 1st, 1901, to September 30th, 1902.

Work.	New.	Re-paired.	Work.	New.	Re-paired.
Ice house		1	Brooms		16
China cupboard	1		Fly screens	11	7
Locks	47	109	Lounges		20
Doors	9	98	Gates	6	3
Door frames	4	20	Sideboards		7
Window sash	9 pr	37	Shelving, feet	90	
Storm sash	12	60	Tables		9
Sidewalk, feet relaid	700		Wheelbarrows	2	9
Stairs		19	Washstands		8
Shutters		29	Blinds	146	37
Picture moulding, feet	700		Carts		4
Mat frames	3	7	Horse stalls		9
Floors	5	16	Coal vaults		1
Floor rubbers	2	46	Verandahs	1	2
Corner seats	1	2	Engine house	1	
Coffins	11		Silo		1
Packing cases	27		Wardrobes	6	5
Chairs		398	Weigh scales	1	1
Bridge		1	Green houses		2
Curtain poles	11		Book cases	2	2
Closet seats	43	97	Parlour screens	1	6
Cupboards	2	13	Base, feet	60	
Knife boxes	1	9			

TABLE No. 23.

Work done in engineering department for year ending September 30th, 1902.

Description.	New work.	Repaired.	Description.	New work.	Repaired.
Iron windlass for slaughter house.	1		Water pipes		39
Hand pump	1		Tinware		70
Laid waste-pipe from slaughter house to tank	150 ft.		Waiter ropes		8
			Valves		47
Lined water tank at farm with galvanized iron			Steam mangle		1
			Mop-holders		3
Smoke-box and pipe, and fitted with spark arrestor	1		Lids on steam kettles		2
			Lanterns		12
Wired rooms (electric)	7		Lawn sprinklers		3
Wired wall brackets	5		Soil pipes		9
Put up wall brackets	5		Urinals (pipes)		11
Put up lightning arrestors	2		" removed		2
Radiators put up	3		Steam leaks		19
Steam coils	2		Lawn mowers sharpened and repaired		97
Closets fitted up	4				
Urinals	1		Drains flushed		7
Bath tubs	3		Electric fixtures re-wired		13
Iron columns to support smoke pipe in boiler-house fitted	2		" " put up		13
			Hot water tank		1
Made new arc lamp poles	11		Packed flange unions		15
" supporting poles to hold up wires	17		Electric wires tested		15
			" switches		13
Made turn buckles	18		Steam pumps		3
" rollers for inside of arc lamp poles for raising and lowering the lamps	42		Engine (small)		1
			Commutator turned off		2
			Washing machine		1
Put up arc lamps	11		Hot water coil		1
" electric wires	7,200 ft.		Daisy boiler		1
Wash basins fitted up	4		Steam kettle		1
Bed springs		7	Tubes in water heaters		24
Beds (iron)		11	New tube-heating boiler		1
Wash basin—pipes cleaned and repaired		80	Hand pumps		2
			Ash elevator		1
Closets cleaned and repaired		265	Removed boiler and pump at sewer house for new foundation		
" removed		4			
Bath tubs removed		7	Laid 500 feet 1-in. pipe in garden		
Waste pipes from baths cleaned		13	Radiators removed		9
Water hydrants		2	Fenders over radiators		2
Bib taps		228	Electric safety plugs		65
Sink pipes		27			

TABLE No. 24.

Return of garden produce for year ending September 30th, 1902.

Articles.	Quantity.	Rate.	Value.
		$ c.	$ c.
Apples	415 barrels	2 00	830 00
Beans	741 pecks	20	148 20
Beets	578 bushels	50	289 00
"	4,832 bunches	2	96 64
Citrons	100	5	5 00
Carrots, table	824 bushels	30	247 20
"	7,200 bunches	1	72 00
Cauliflowers	3,126 heads	5	156 30
Celery	10,210 "	3	306 30
Cabbage, early	3,436 "	4	137 44
" late	18,974 "	3	569 22
Corn, green	819 dozen	8	65 52
Cucumbers	904 "	12	108 48
Cress	1,200 bunches	1	12 00
Currants	1,122 quarts	6	67 32
Grapes	41 baskets	50	20 50
Lettuce	15,902 bunches	1	159 02
Mint	200 "	1	2 00
Melons	340	5	17 00

TABLE No. 24. *Continued.*

Articles.	Quantity.	Rate.	Value.
		$ c.	$ c.
Marrows	275	5	13 75
Onions	313 bushels	75	234 75
"	16,000 bunches	1	160 00
Potatoes, early	215 bushels	1	215 00
Parsnips	493 "	50	246 50
Pumpkins	367	10	36 70
Peas, green	613 pecks	20	122 60
Parsley	1,500 bunches	1	15 00
Pears	76 baskets	40	30 40
Plums	4 "	40	1 60
Spinach	263 bushels	30	78 90
Salsify	50 "	50	25 00
Squash	196	6	11 76
Savory	900 bunches	1	9 00
Sage	100 "	1	1 00
Strawberries	679 baskets	8	54 32
Raspberries	793 "	6	47 88
Rhubarb	10,642 bunches	2	212 84
Radishes	16,712 "	1	167 12
Thyme	500 bunches	1	5 00
Tomatoes	247 bushels	50	123 50
Turnips	402 "	25	100 50
Hay	8 tons	10 00	80 00
Bedding plants	54,768		
Large plants	4,960		
Annuals	10,694		
Total			$5,302 26

TABLE No. 25.

Return of farm produce for year ending September 30th 1902.

Name.	Quantity.	Rate.	Value.
		$ c.	$ c.
Wheat	57 bushels	70	39 90
Oats	2,200 "	35	770 00
Peas grass	30 "	80	24 00
Mixed peas and oats	90 "	50	45 00
Hay	81 tons	12 00	972 00
Straw	70 "	6 00	420 00
Ensilage	300 "	1 50	450 00
Green feed for cow's	21 loads	1 00	21 00
Potatoes	1,800 bushels	75	1,350 00
Mangold's	300 tons	5 00	1,500 00
Milk	18,549¼ gal's	16	2,967 88
Eggs	263 dozen	19	49 97
Turkeys	8	1 00	8 00
Calves			6 50
Hogs			1,149 64
Beans green	11 bushels	60	6 60
Beets	50 "	40	20 00
Corn	400 dozen	10	40 00
Cabbage	400	3	12 00
Carrots (field)	250 bushels	20	50 00
do (garden)	50 "	30	15 00
Lettuce	800 bunches	2	16 00
Onions, green	600 bunches	2	12 00
do dry	10 bushels	70	7 00
Peas, green	12 "	1 00	12 00
Parsnips	50 "	40	20 00
Radishes	300 bunches	2	6 00
Rhubarb	800 "	2	16 00
Tomatoes	10 baskets	30	3 00
Plums	8 "	60	4 80
Crab apples	6 "	25	1 50
Apples	25 bushels	50	12 50
Total			10,028 29

TABLE No. 26.

MIMICO ASYLUM.—Farm Exchange account.

1901.		Disbursements.	$	c.
Oct.	7.	To cash paid P. Hamilton Co., ensilage cutter etc	89	00
Nov.	13.	" T. Dann, 2 horses	288	65
"	13.	" R. Hunter, 2 milch cows	93	00
"	6.	" C. E. Musgrove, music	4	00
"	13.	" " "	4	00
Dec.	14.	" " "	16	00
Nov.	19.	" P. McNaughton, "	5	25
"	21.	" " "	6	60
"	27.	" " "	2	00
Dec.	31.	To balance	99	03
			607	53
1902.				
Jan.	8.	To cash paid C. E. Musgrove, music	16	00
"	23	" R. Hunter, 3 milch cows	143	25
"	31.	" Market fees		24
Feb.	5.	" P. McNaughton, music	4	40
"	5.	" C. E. Musgrove, "	12	00
"	13.	" P. McNaughton, "	5	60
"	26.	" C. E. Musgrove, "	12	00
Mch.	21.	" R. Hunter, 3 milch cows	140	50
"	26	" C. Musgrove, music	4	00
"	19.	" " "	12	00
"	31.	" To balance	428	62
			778	61
May	20.	To cash paid J. Forbes, 1 horse	175	00
"	22.	" Market fees		30
June	3.	" "		27
"	4	" R. Hunter, 5 milch cows	235	00
"	20.	" P. Hamilton Co., 1 scuffler	8	00
"	20.	" Market fees		15
"	30.	To balance	780	13
		Carried forward	1,199	35

1901.		Receipts.	$	c.
Oct.	1.	By balance	508	18
Nov.	13.	By cash from R. Hunter, 2 dry cows	70	00
"	21.	" W. H. Smith, 1 horse	20	25
Dec.	9.	" W. G. Harris, 1,300 lbs rags at 70c 100	9	10
			607	53
1902.				
Jan.	1.	By balance	99	03
"	8.	By cash from R. Hunter, 3 dry cows	115	00
"	31.	" W. Harris, 8 live hogs. 1,840 at 6c.	110	40
Mch.	21.	" R. Hunter, 3 dry cows	128	00
"	31.	" Maintenance account for pork	326	18
			778	61
April	1.	By balance	428	62
"	2.	By cash from Pugsley, Dingman & Co. 292 lbs Tallow at 5	14	60
"	2.	" A. H. Brooks, 1 calf	1	00
"	2.	" D. Henry, 1 calf	1	00
May	20.	" Gronds Repository, 1 horse	28	85
"	22.	" W. Harris, 10 live hogs. 1,970 lbs. at 7¼	142	82
June	3.	" " 9 " 1,650 lbs. at 6¾	111	37
"	4.	" R. Hunter, 5 dry cows	240	00
		Carried forward	968	26

TABLE No. 26.—*Concluded.*

1902.	Disbursements.	$ c.
	Brought forward	1,199 35
		1,199 35
July 23.	To cash paid Market fees	08
Aug. 6.	" R. Hunter, 3 milch cows	145 25
Sep. 2.	" Market fees	12
" 30.	" Steele Briggs, seeds etc.	1,049 65
		$1,212 15

1902.	Receipts.	$ c.
	Brought forward	968 26
June 5.	By Cash from W. Harris, 9 live hogs, 1,500 lbs. at 6⅞c	103 12
" 6.	" Farm exchange 782 lbs. pork at 8¾c	68 42
" 9.	" P. McElroy, 1 calf	1 50
" 20.	" W. Harris, 5 live hogs, 860 lbs. at 6¾c	58 05
		1,199 35
July 1.	By balance	780 13
" 8.	By cash from W. G. Harris, 4 dressed hogs, 526 lbs at 9¾c	51 28
" 23.	" " " 3 live hogs, 1,610 lbs. at 5½c	88 55
" 23.	" " " 4 " 830 lbs. at 7⅜	61 20
Aug. 6.	" R. Hunter, 3 dry cows	120 00
" 6.	" W. G. Harris, 1,670 lbs. rags at 70c per 100	11 69
" 8.	" P. Bloke, 1 calf.	1 00
Sep. 2.	" W. Harris, 4 live hogs, 1,880 lbs. at 5c	94 00
" 11.	" P. McElroy, 1 calf	1 00
" 22.	" F. Faulkner, 1 calf	1 00
" 9.	" W. Burroughs, 230 carbons 1c	2 30
		$1,212 15
Oct. 1.	By balance	$1,049 65

ANNUAL REPORT OF THE MEDICAL SUPERINTENDENT OF THE ASYLUM FOR THE INSANE, BROCKVILLE, FOR THE YEAR ENDING SEPTEMBER 30TH, 1902.

Brockville, Ont., October 1st, 1902.

To Robert Christie, Esq.,

Inspector of Asylums, Ontario :

Sir,—I have the honor to submit herewith the Eighth Annual Report of this Asylum, for year ending September 30th, 1902.

—	Male.	Female	Total.	Male.	Female.	Total.
Patients remaining, October 1st, 1901				301	312	613
Admitted during the year :						
By Lieutenant-Governor's Warrant (direct)	18	18	36			
" " (from Mimico)	19		19			
By medical certificate (direct)	31	38	69			
" (from Mimico Asylum)	6		6			
Total admissions				74	56	130
Total number under treatment during the year				375	368	743
Discharged during the year :						
Recovered	20	22	42			
Improved	1	2	3			
Unimproved		1	1			
Total discharges	21	25	46			
Died	35	19	54			
Eloped	3	1	4			
Total				59	45	104

Remaining in Asylum September 30th, 1902: Male, 316; female, 323 ; total, 639.

Maximum number in residence, August 24th, 1902 : Male, 328; female, 324; total, 652.

Percentage of recoveries on direct admission, 40.

Percentage of recoveries on all admissions, including transfers, 32.30.

Percentage of deaths on number under treatment, 7.26.

Yearly per capita cost of maintenance, $115.18.

Weekly per capita of maintenance, $2.21.

Admissions.

During the past year we received 49 males and 56 females from the counties comprising the Brockville Asylum district, the total, 105, being ten in excess of the number admitted last year. In addition to these there were 25 males transferred from Mimico Asylum, making the total number 130.

Sixty-nine of the district admissions were by medical certificates, and the remainder, being 18 males and 18 females, by Lieutenant-Governor's warrant, through the gaols. That so large a number were forced to endure detention in the common gaol is greatly to be regretted, as if at the inception of the disease recourse is had to the Superintendent of the district asylum, the warrant procedure following upon mental affliction could be in the main avoided. There are exceptional cases when a person becoming suddenly and violently insane, it is found necessary, in the interest of public safety to imprison the unfortunate pending arrangements for his admis-

sion to th Asylum, but as a rule mental trouble can be detected and proper steps taken without subjecting the unfortunate victim to the further hardships of treatment accorded to criminals

Discharges.

The discharges consisted of 46 patients, 21 males and 25 females, and of this number 20 males and 22 females had recovered, 1 male and 2 females were improved, and 1 female remained unimproved.

The percentage of recoveries on district admissions was 40, and on all admissions, including transfers, 32.30.

Deaths.

Of our number, 34 males and 19 females, a total of 54, died during the year, being a percentage of 7.2 on the whole population. This percentage is slightly larger than last year's, but more than half of those who died were over sixty years of age.

It is a pleasure to record that no death from causes other than natural ones occurred during the year. While in an Institution of this character, regrettable fatalities might take place, notwithstanding the utmost vigilance, it is none the less a subject for great satisfaction when an absence of deaths from violence, suicide or homicide can be recorded.

Care of the Insane.

The growth of Asylum population has of late years been steady, and the increase in the number of mentally afflicted might be alarming, were it not that several circumstances must be taken into consideration in connection with the filling of asylums almost before the bricks composing their walls are dry. Insanity to-day is regarded as a disease, unwelcome it is true, as all diseases are, but in many instances curable; and as the insane hospitals have justly established their reputation as desirable places of abode for the mentally affected, and whereas formerly people either endeavored to treat privately their afflicted ones, whom they dared not trust to "mad houses," or, on the other hand, kept them chained in woodshed or cellar, rather than permit the so-called disgrace to be known outside their household, modern enlightenment has been successful in overcoming both such prejudices, and the asylum populations are proportionately increased. Besides these two reasons, there exists another, namely, the greater longevity of asylum patients, to which the regular life and plain, substantial fare conduce. Our modern hospital treatment, humane as it is in the best sense of the term, has resulted in raising the average of asylum life, and numbers of our patients wear out very very slowly. As an example of this, I may cite the case of an old man, who died here a few days ago at the age of one hundred and two years. He had been admitted in 1847, fifty-five years ago, to the first asylum established in this Province. Seven other patients who died during the year had been asylum inmates for over 30 years, and three over 25 years, so that when we have a large stationary population, supplemented by acute and curable cases, the statistics relating to insanity are at first glance alarming. There is no doubt that, with the strenuous life so greatly affected, or perforce adopted, in the present day, the proportion of insane is greater than it would be were simple, uncrowded lives the rule, rather than the exception; but there is little use in an endeavor to preach the gospel of simplicity, which term is now seldom met with out of the dictionaries, and the world seems to have resigned itself into drifting with the "madding crowd." The price of such a life, we all know, is mental breakdown and curtailed lives, and perhaps the most fortunate are not

always those whose infirmities compel their retirement inside the walls of a modern hospital, whose mission is the care and if possible the cure of the mentally alienated.

Order is heaven's first law, and if the normal balance of our lives be disturbed, if any one organ of our anatomy be subjected to undue labor or strain, a compensatory antithetical condition is demanded by nature, otherwise she refuses to restore health to the impaired parts, and it is for this reason that the rest cure figures so prominently in therapeutics to-day. The world's idea of progression has deteriorated into a wild rush, and rest, instead of being the natural heritage of man, is no longer a draught in large quantities outside the walls of hospitals and sanotoria. Many of our people come to us wrecked physically and mentally by the burden of cares to which each succeeding day has been adding its quota. Others with perhaps stronger powers of resistance, might have continued the life of high pressure, had not a bereavement, or an unfortunate speculation, proven the last straw that the tense system could withstand, and dropping, it may be, only for a time out of the race, the asylum doors open to receive them. Rest, entire and complete, physical and mental, is our sheet anchor in such cases, though often it is some time before the victims of the feverish life can be influenced.

The brain, which is the organ of mind, controls all the other organs of the body, and is itself dependent for support upon them, thus being in the position of a man who, with many servants, may yet be badly served. Disease or disordered functions of the various organs of the body impair the healthy condition of the brain, consequently when this inter-relation is considered in connection with the feverish pace at which the world moves, we arrive at another cause for the large percentage of insane.

Insanity which results from such derangements and from physical overexertion should be considered curable, as the causes in a great many cases are removable, and this class of our people, as well as the victims of adversity, fright, shock, etc., usually respond to remedial treatment sooner or later.

But when a diseased, not a disordered, condition of the brain exists, the outlook from a curative standpoint is not encouraging. General paresis is, as a rule, fatal in from one to three years. Dementia arising from cerebral atrophy, degeneration, or softening, or from tumors in various parts of the encephalon, may run a fatal course in a few weeks, or may last for years.

In these cases our efforts can be directed towards only the amelioration of the patient's condition. Cure is in the majority of instances beyond the power of man and, hygiene and comfortable surroundings are mainly indicated.

Pleasant and healthy environment, scrupulously clean and pleasant living and bed rooms, regular hours for sleeping and eating, good food, suitable clothing and amusements in the form of games, entertainments, and reading matter, are important factors of general treatment, and when, with the recuperation of the physical powers, a patient would be benefited by employment of some kind, not necessarily manual labor, some or other occupation is assigned him, it may be in the garden, on the farm, or even doing clerical work, but an unwritten law exists that the work is for the patient, not vice versa, a fact to which our people are sensibly alive.

Cost of Maintenance.

As a consequence of the coal strike, the contractor has been unable to secure our supply of coal, contracted for in May, and this naturally reduces our maintenance account, the per capita cost being $115 per annum.

Light.

I would urge upon your consideration the substitution of electricity for gas when the present contract expires. Fortunately no accident has ever happened here as a result of the use of gas, but there is no denying the fact that it is a dangerous illuminant in an insane community. The numerous jets, the turning of one of which by a mischievous patient might do so much harm, the necessity for matches, which are very dangerous agents in the hands of irresponsible persons, and the vitiation of the air that is sure to accompany to some degree the use of gas, are reasons which militate against its continuance here. As for outdoor illumination the present system consists of a solitary lamp in the midst of the dense foliage of the park, and on a cloudy night this very inadequate light only serves to make darkness more visible. This, in a place where patients of all degrees of insanity are being received at all times, is not as it should be, and I hope the time is not far distant when we will have an electric plant capable of lighting both buildings and surroundings.

Garden and Farm.

The yield of the garden and farm was above the average this year. Besides the work incidental to our farm, which from its size and nature was sufficient in itself to tax the energy of the farmer, Mr. McCrimmon added to the reputation of his piggery, whose products meet with ready sale amongst farmers and dealers. The receipts from the sale of pigs and pork for the year amounted to $1,203.67.

Wants.

An assembly hall is as yet an unaccomplished fact, and until a suitable building is erected where the patients can comfortably congregate, any efforts made for their religious benefit or for their amusement will be seriously handicapped. I have urged the question so frequently that any further arguments made in favor of it would be only repetitions of what I have said in former reports, but, with the advent of the annual amusement season, the question looms up with renewed unpleasantness, as every year finds us with an increase of poulation, while the small room used as a makeshift refuses to expand an inch.

A skating rink is practically a radical necessity in this section, where snow abounds to such an extent and for such a length of time. For some winters past we have had an open rink for patients, but very few can be induced to breast the keen winds, which sweep with great violence about the asylum owing to its elevated position. A covered rink would permit of skating, curling, and other winter outdoor amusements, and I need not dwell on the benefits that would ensue to our people were such diversion possible. The construction work could be done by asylum labor, so that the expenditure entailed would be comparatively trifling.

The library continues to be patronized very extensively. A grant for additional books would enlarge its sphere of usefulness.

In the female convalescent ward there are usually patients whose musical education has been of a high order, and whose accomplishment might be turned to account for the benefit of their sister inmates if a piano were in the ward. The one general purpose piano in the amusement room is always at the disposal of the musically inclined, but the privilege enjoyed by a patient in this way often necessitates the supervision of a nurse, whose absence from the hall, of course, distrubs to a certain extent the regular routine. I would urge this item upon your serious consideration, as it

means a great deal to those of our convalescent women, upon whom music has an influence.

Acknowledgments.

In the name of our afflicted family, so many of whom have been comforted by the words of the gospel, and who find that a still loving Father speaks to them through His ministers, I desire to thank the clergymen of the different denominations for the uniform interest displayed in the inmates of the asylum.

The members of the choirs and other musical organizations who helped to brighten the lives of the insane have also our sincere thanks.

We are deeply indebted to Mr. F. R. Curry for contributions to the prize list for the Patients' Annual Sports.

The members of the staff, and the attendants and employes have my deep appreciation for the hearty way in which their duties have been discharged, thus facilitating the great aim of the Institution,—the highest possible good to the large number in our charge.

And to you, Sir, for your capable and courteous co-operation and advice in all questions submitted to you, my thanks are hereby tendered.

I have the honor to be, Sir,

Your obedient servant,

J. B. MURPHY,

Medical Superintendent.

ANNUAL STATISTICAL REPORT

Of the operations of the Asylum for Insane, Brockville, for the year ending 30th September, 1902.

TABLE No. 1.

Shewing movements of patients in the asylum for the official year ending September 30th, 1902.

	Male.	Female.	Total.	Male.	Female.	Total.
Remaining, October 1st, 1901	.....	.....	.....	301	312	613
Admitted during year						
By Lieutenant-Governor's warrant	37	18	55			
By medical certificate	37	38	75	74	56	130
Total number under treatment during year	.....	.....	.....	375	368	743
Discharges during year:						
As recovered	20	22	42			
As improved	1	2	3			
As unimproved	.....	1	1			
Total number of discharges during year	21	25	46			
Died	35	19	54			
Eloped	3	1	4	59	45	104
Remaining in Asylum, 30th September, 1902	.....	.....	.....	316	323	639
Total number admitted since opening of Asylum	.....	.....	.....	616	582	1,198
" discharged	129	156	285			
" died	157	102	259			
" eloped	12	1	13			
" transferred	2	.....	2	300	259	559
" remaining, 30th September, 1902	.....	.....	.....	316	323	639
No. of applications on fyle	3	5	8			

TABLE No. 2.

Shewing the maximum and minimum number of patients resident in the Asylum, the total number of days' stay of patients, and the daily average number of patients in the Asylum, from the 1st October, 1901 to 30th September, 1902.

	Male.	Female.	Total.
Maximum number of patients in residence (on the 21st of August)	328	324	652
Minimum " " " (on the 2nd of October).....	301	312	613
Collective days' stay of all patients in residence during year.	115,419	116,348	231,767
Daily average population	316.219	318.761	634 98

	Admissions of year.			Total admissions since opening.			
	Male.	Female.	Total.	Male.	Female.	Total.	Total.
Social state.							
Married	26	28	54	189	264	453	507
Widowed.....							
Single.....	48	48	76	353	262	615	691
Not reported	.....	.....	.....	.....	.....	.....	...
Total	74	56	130	542	526	1,068	1,198
Religion.							
Presbyterians	16	10	26	95	87	182	208
Episcopalians	11	11	22	98	93	191	213
Methodists.....	12	9	21	80	116	196	217
Baptists	1	.....	1	12	13	25	26
Congregationalists.....	.....	1	1	2	2	4	5
Roman Catholics	28	25	53	194	190	384	437
Mennonites	.....	.....	.....	.....	.....	.....	.....
Quakers.....	.....	.....	.....	.....	.....	.....	...
Infidels	.....	.....	.....	....	.....	.....	...
Other denominations.....	4	.....	4	30	18	48	52
Not reported.....	2	.....	2	31	7	38	40
Total	74	56	130	542	526	1,068	1,198
Nationalities.							
English	6	3	9	40	31	71	80
Irish.....	3	2	5	45	76	121	126
Scotch	3	2	5	16	15	31	36
Canadian.....	58	47	105	385	379	764	869
United States	3	2	5	20	11	31	36
Other countries.....	1	.....	1	17	7	24	25
Unknown	.....	.....	.....	19	7	26	26
Total	74	56	130	542	526	1,068	1,198

TABLE No. 3.

Shewing the Counties from which patients have been admitted up to 30th September, 1902

Counties.	Admitted during year.			Total admittance.		
	Male.	Female.	Total.	Male.	Female.	Total.
Bruce				4	1	5
Carleton	10	24	34	130	130	260
Elgin				4	3	7
Essex	1		1	4	3	7
Frontenac	1		1	11	13	24
Grey	1		1	3	1	4
Haldimand				3		3
Halton				2		2
Hastings	1	1	2	10	26	36
Huron				1	2	3
Kent				6	1	7
Lambton				6	1	7
Lanark	7	7	14	55	53	108
Leeds and Grenville	14	11	25	98	109	207
Lennox and Addington				3	5	8
Lincoln				2	3	5
Middlesex	1		1	13	13	26
Muskoka District				1		1
Nipissing District					1	1
Norfolk				2		2
Northumberland and Durham				12	19	31
Ontario	3		3	4	6	10
Oxford				3	2	5
Peel	2		2	4	2	6
Perth				5		5
Peterborough	3		3	4	2	6
Prescott and Russell	4	5	9	41	44	85
Prince Edward				2	3	5
Renfrew				9	8	17
Simcoe				7	2	9
Stormont, Dundas and Glengarry	12	8	20	102	81	183
Thunder Bay District	1		1	1		1
Victoria	1		1	2	8	10
Waterloo				2		2
Welland				3		3
Wellington				1	2	3
Wentworth				3	5	8
York	12		12	47	42	89
Not Classed				6	1	7
Total admissions	74	56	130	616	582	1,198

TABLE No. 4.

Shewing the Counties from which warranted cases have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total admissions.		
	Male.	Female.	Total.	Male.	Female.	Total.
Bruce				2		2
Carleton	7	13	20	92	75	167
Elgin				3	1	4
Essex	1		1	2	3	5
Frontenac				6	7	13
Grey				1	1	2
Haldimand				3		3
Halton				1		1
Hastings				6	17	23
Kent				3		3
Lambton				5	1	6
Lanark	3	1	4	22	13	35
Leeds and Grenville	1	2	3	24	14	38
Lennox and Addington				3	5	8
Lincoln				2	2	4
Middlesex				8	4	12
Norfolk				1		1
Northumberland and Durham				7	3	10
Ontario	3		3	5	6	11
Oxford				4	1	5
Peel	1		1	1		1
Perth				5		5
Peterborough	3		3	4	2	6
Prescott and Russell	3	2	5	26	23	49
Prince Edward				2	2	4
Renfrew				8	4	12
Simcoe				5	2	7
Stormont, Dundas and Glengarry	4		4	23	9	32
Thunder Bay District	1		1	1		1
Victoria	1		1	2	7	9
Welland				4		4
Wellington				1		1
Wentworth				3	2	5
York	9		9	42	35	77
Not classed					1	1
Total admissions	37	18	55	327	240	567

TABLE No. 5.

Shewing the length of Residence in the Asylum of those discharged during the year.

No.	Initials.	Sex.	When admitted.	When discharged.	Remarks.
1	S. M. T.	M.	October 27, 1901	December 10, 1901	Recovered.
2	C. M.	F.	April 3, 1897	December 16, "	"
3	G. L.	M.	May 8, 1901	December 22, "	"
4	C. B.	F.	July 23, 1901	December 27, "	"
5	A. G.	F.	April 4, 1901	January 4, 1902	"
6	J. G.	M.	May 21, 1901	January 11, "	"
7	M. L. O.	F.	January 23, 1902	January 25, "	Unimproved.
8	M. C.	F.	May 31, 1901	February 4, "	Recovered.
9	C. L.	F.	May 12, 1901	February 12, "	"
10	C. McR.	F.	May 23, 1901	February 13, "	"
11	E. S.	F.	July 15, 1901	February 15, "	"
12	M. B.	F.	November 3, 1898	February 20, "	"
13	W. C. F.	M.	November 22, 1901	April 8, "	Improved.
14	R. T. H.	M.	February 8, 1901	April 12, "	Recovered.
15	T. O.	M.	September 17, 1901	April 28, "	"
16	A. G.	M.	May 17, 1901	May 2, "	"
17	G. L.	M.	May 17, 1901	May 2, "	"
18	C. L.	F.	September 16, 1901	May 3, "	"
19	G. E. M.	M.	August 14, 1900	May 9, "	"
20	C. A.	F.	September 19, 1901	May 19, "	"
21	J. A.	F.	July 24, 1901	May 20, "	"
22	Geo. St. L.	M.	September 25, 1901	May 26, "	"
23	M. F.	F.	October 3, 1901	June 16, "	"
24	H. B.	M.	November 16, 1901	June 19, "	"
25	J. W.	M.	November 4, 1901	June 21, "	"
26	N. M.	F.	June 27, 1901	July 2, "	"
27	A. D.	F.	July 30, 1901	July 4, "	"
28	F. N.	F.	November 6, 1901	July 28, "	"
29	A. E.	M.	April 1, 1901	August 13, "	"
30	T. B.	M.	February 18, 1902	August 22, "	"
31	W. H.	M.	November 3, 1901	August 22, "	"
32	J. B. R.	M.	August 13, 1901	August 22, "	"
33	R. G.	F.	August 22, 1901	August 22, "	"
34	E. C.	F.	November 6, 1901	August 23, "	"
35	S. T.	M.	June 28, 1902	August 24, "	"
36	J. D.	M.	January 8, 1902	August 25, "	"
37	S. A. H.	F.	January 18, 1902	September 10, "	"
38	J. C.	F.	May 20, 1902	September 22, "	Improved.
39	M. S.	F.	February 25, 1895	September 29, "	Recovered.
40	R. M.	M.	March 4, 1896	September 29, "	"
41	L. C.	F.	September 26, 1901	September 29, "	"
42	J. M.	M.	February 9, 1899	September 30, "	"
43	C. S.	M.	December 28, 1901	September 30, "	"
44	S. L.	F.	November 29, 1901	September 30, "	"
45	F. B.	F.	January 25, 1902	September 30, "	"
46	M. A. B.	F.	March 25, 1902	September 30, "	Improved.

TABLE No. 6.

Shewing age, length of residence, and proximate cause of death of those who died during the year ending 30th September, 1902.

No.	Initials.	Sex.	Age.	Date of death.	Residence in Asylum.			Proximate cause of death.
					Years.	Months.	Days.	
1	P. O.	F	92	October 24	4	11	21	Senile decay.
2	W. B.	M.	37	October 27	4		19	Exhaustion of Epilepsy.
3	C. K.	F	72	October 28		4	2	Senile decay.
4	D. C.	M.	23	November 14	1	2	27	Phthisis
5	A. R.	M.	66	November 15		8	24	General Paresis.
6	N. McK.	M.	62	November 18	4	5	2	Phthisis.
7	M. H.	F	77	December 2		4	8	Senile decay.
8	M. B.	M.	65	December 6			14	Exhaustion of melancholia.
9	W. S.	M.	67	December 18	6		13	Exhaustion of dementia.
10	C. O.	M.	35	December 22		4	15	General paresis.
11	M. McR.	F	32	January 7	6	10	13	Phthisis.
12	J. S.	F	52	January 8	1	4	18	Exhaustion of dementia
13	J. McD.	M.	72	January 13	6	10	19	General debility.
14	J. C.	M.	77	January 29	3	3	14	Anaemia.
15	P. P.	M.	76	February 11	4	7	27	Heart disease.
16	D. McD.	M.	62	February 13	1	8	16	Gangrene.
17	R. R.	F	64	February 18	5		16	Exhaustion of dementia.
18	W. H.	M.	59	February 23			10	Gangrene.
19	C. L.	F	61	February 26	3	11		Exhaustion of mania.
20	W. S.	M.	48	March 1	1	10	14	Heart disease.
21	W. V.	M.	64	March 4	6	9	15	General debility.
22	P. G.	M.	55	March 4	1	10	17	Anaemia.
23	C. C.	M.	30	March 7		10	24	General paresis.
24	M. M.	F	60	March 9		1	5	Heart disease.
25	A. L.	M.	16	March 11	1	5	5	Epilepsy.
26	T. McK.	M	78	March 14			4	Exhaustion of mania.
27	S. B.	M.	70	March 18	1	9	24	General debility.
28	V.S	M.	63	March 20	7		23	Heart disease.
29	A. P.	M.	39	April 1	5	1	20	Exhaustion of epilepsy.
30	S. B. H.	F	30	April 3	2	3	28	Valvular disease of heart.
31	R. J.	M.	40	April 14		5	7	Nephritis.
32	J. S.	F	58	April 15	7	1	28	Gangrene.
33	W. P.	M.	70	May 3	4	10	18	Epilepsy.
34	R. M.	F	55	May 6	2	1	15	Phthisis
35	M. H.	M.	74	May 15	2		28	Gangrene.
36	J. K.	M.	64	May 16	2		23	Exhaustion of dementi
37	C. McC.	F	66	May 17	5	6	13	Rheumatism.
38	J. W.	M.	25	May 21	4	11	6	Epilepsy.
39	A. H.	F	60	June 1		1	25	Apoplexy.
40	M. L.	F	59	June 16	6	11	22	Cancer of Stomach.
41	M. D.	F	55	June 18	1	7	16	Apoplexy.
42	A. J.	M.	59	June 27	4	2	5	Cancer of Liver.
43	M. R.	F	44	July 10	2	2	20	Phthisis.
44	I. McR.	F	53	July 24	6	7	13	Carcinoma.
45	D. E.	F	62	August 17	7	5	20	Paralysis.
46	L. S.	M.	43	August 24	5	2	9	Exhaustion of dementia.
47	F. P.	M.	47	August 25	6	8	20	Phthisis.
48	A. McR.	M.	61	August 31	2	10	7	Heart disease.
49	J. S. S.	M.	38	September 6	5	10	3	Exhaustion of dementia.
50	M. G.	F	35	September 9	4	9	21	Phthisis.
51	C. D.	M.	84	September 16	6	9	11	Diarrhœa.
52	J. M.	M.	30	September 16	6	8	14	Pneumonia.
53	J. B.	M.	91	September 23	5	3	8	Carcinoma.
54	R. R.	M.	102	September 30	2	5	13	Senile decay.

TABLE No. 7.

Shewing Trades Callings and Occupations of Patients admitted into the Asylum.

Trades, callings and occupations.	During the Year.			During Former Years.			Total.
	Males.	Females	Total.	Males.	Females	Total.	
Agents	1		1	2		2	3
Artists					1	1	1
Book-keepers				1		1	1
Bakers				1		1	1
Butchers				1		1	1
Blacksmiths	1		1	3		3	4
Barbers				1		1	1
Bookbinders				1		1	1
Brickmakers				2		2	2
Brakesmen				1		1	1
Commercial travellers				1		1	1
Cabinet-makers				2		2	2
Confectioners	1		1				1
Carpenters	1		1	13		13	14
Clerks				14	4	18	18
Clergymen				2		2	2
Carriage-makers	1		1	1		1	2
Cooks	1	1	2				2
Coachmen				3		3	3
Civil Servants				3		3	3
Carters				2		2	2
Domestic servants, all kinds		6	6	1	119	120	126
Dressmakers		1	1		7	7	8
Druggists	1		1	2		2	3
Dentists				1		1	1
Engineers	1		1	4		4	5
Engravers				1		1	1
Farmers	12		12	167		167	179
Gardeners				1		1	1
Grocers	1		1	1		1	2
Glass-blowers				1		1	1
Harness-makers				3		3	3
Housekeepers		47	47		258	258	305
Inn-keepers				1		1	1
Jewellers	1		1	1		1	2
Labourers	31		31	159		159	190
Laundresses				1	1	2	2
Lumbermen				2		2	2
Milliners		1	1		2	2	3
Masons				3		3	3
Machinists				4		4	4
Millers				1		1	1
Moulders				4		4	4
Merchants	3		3	4		4	7
Mechanics	1		1	4		4	5
Music-teachers					1	1	1
No occupation	11		11	22	67	89	100
Night-watchmen				2		2	2
Nurses					4	4	4
Not stated				13	32	45	45
Other occupations				8		8	8
Prostitutes					2	2	2
Painters	1		1	6		6	7
Printers	1		1	3		3	4
Pump-makers				2		2	2
Railway Conductors				1		1	1
Spinsters					1	1	1
Sailors				3		3	3
Students				9	1	10	10
Spinners				1		1	1
Sisters of Charity					1	1	1
Stone-cutters				2		2	2
Saddlers				1		1	1
Shoemakers				5		5	5
Seamstresses					4	4	4
Soap-makers				1		1	1
Sail and tent-makers				1		1	1
Teachers	1		1	5	3	8	9

TABLE 7.—*Continued.*

Trades, callings and occupations.	During the year.			During former years.			Total.
	Males.	Females.	Total.	Males.	Females.	Total.	
Tinsmiths	1		1	3		3	4
Tailors	1		1	5	2	7	8
Teamsters	1		1				1
Watchmakers				1		1	1
Wood-workers				1		1	1
Weavers					1	1	1
Waggon-makers				1		1	1
Unknown or other employments				26	35	61	61
Total	74	56	130	542	526	1,068	1,198

TABLE No. 8.

Shewing causes of insanity.

CAUSES OF INSANITY. In respect of the admissions for the year ending 30th September, 1902.	Number of instances in which each cause was assigned.					
	As predisposing cause.			As exciting cause.		
	Males.	Females	Total.	Males.	Females	Total.
Moral.						
Domestic troubles, including loss of relatives or friends	1	1	2		4	4
Religious excitement				1	2	3
Adverse circumstances, including business troubles	3	3	3	6		6
Love affairs, including seduction					1	1
Mental anxiety, "worry"	1		1	3	5	8
Fright and nervous shocks				2	2	4
Physical.						
Intemperance in drink	1		1	11	1	12
Intemperance, sexual						
Venereal disease	1		1			
Self-abuse, sexual				4		4
Over-work		2	2	1	1	2
Sunstroke						
Accident or injury				1	3	4
Pregnancy		1	1		2	2
Puerperal					2	2
Lactation						
Puberty and change of life		1	1		4	4
Uterine disorders					3	3
Brain disease, with general paralysis				1	2	3
Brain disease, with epilepsy	2		2	6	2	8
Other forms of brain disease					1	1
Other bodily diseases or disorders, including old age	9	5	14	11	12	23
Fevers				1	1	2
Hereditary.						
With other ascertained cause in combination	26	10	36			
With other combined cause not ascertained	3	6	9			
Congenital.						
With other ascertained cause in combination	1		1			
With other combined cause not ascertained	1		1	2		2
Unknown	28	27	55	24	8	32
Total	74	56	130	74	56	130

TABLE No. 9.

Shewing the Probational Discharges and the result thereof.

Reg. No.	Sex.	Initials.	Date of probational discharge.	Term of probation.	Result.
1033	M	A.G	October 3, 1901	3 months	Discharged, recovered.
1012	F.	C. L	" 12 "	3 "	" "
1038	F.	M.C	" 12 "	3 "	" "
1035	M	J.G.	" 26 "	3 "	" "
1063	M	T.O	" 28 "	3 "	" "
1052	F.	C.B.	" 31 "	1 "	" "
1034	M	G L.	" 31 "	3 "	" "
1049	F.	E.S.	November 9 "	3 "	" "
1037	F.	C.McR	" 9 "	3 "	" "
742	F.	M.B	" 9 "	3 "	" "
1065	F.	C.A.	" 19 "	3 "	" "
1071	M	S.M T	December 3 "	1 "	" "
1057	M	J.J.M	" 4 "	1 "	Returned.
1022	M	J G.S	" 12 "	1 "	"
1027	M	E.B.	" 12 "	1 "	"
1090	M	W.C.T	" 14 "	1 "	"
1054	F	J.A	" 20 "	3 "	Discharged, recovered.
1069	F.	M.F.	February 15, 1902	3 "	" "
1066	M	G St.L	" 18 "	3 "	" "
1079	F.	F.H	March 1 "	3 "	" "
1062	F.	C.L.	" 5 "	3 "	" "
1085	M	H B	" 13 "	3 "	" "
1077	M	J.W	" 21 "	3 "	" "
1055	F.	A.D	" 31 "	3 "	" "
1044	F.	H.M	" 31 "	3 "	" "
1011	F.	E.G	April 1 "	1 "	Returned.
929	M.	G E.M	" 1 "	1 "	Discharged, recovered.
1099	M.	C.S	" 1 "	3 "	" "
578	M.	J.H.D	" 8 "	3 "	Still out.
1093	F.	M.R	" 23 "	"	"
1058	M.	W.H	May 12 "	3 "	Discharged, recovered.
1076	M.	T.B.	" 10 "	3 "	" "
1081	F.	R.G	" 15 "	3 "	" "
1092	F	S.L	" 23 "	3 "	" "
1102	F.	J.D	" 24 "	3 "	" "
1087	F.	M.C	" 30 "	6 "	Still out.
1111	F	E.C	June 10 "	3 "	Discharged, recovered.
1104	F.	S.A.H	" 10 "	3 "	" "
1068	F.	L.C	" 19 "	3 "	" "
141	F.	M.S	" 20 "	3 "	" "
762	M	J.M	" 30 "	3 "	" "
858	M	A.E.D	July 14 "	6 "	Still out.
303	M	R.W	" 16 "	3 "	Discharged, recovered.
1057	M	J.J.M	August 22 "	1 "	Returned.
1022	M	J.G D	Sept'mbr 17 "	3 "	Still out.
1158	F.	M.F.W	" 29 "	3 "	"

SUMMARY OF PROBATIONAL DISCHARGES.

	Males.	Females	Total.	Males.	Females	Total.
Number to whom probational leave was granted				23	23	46
Discharged, recovered	14	19	33			
Returned to Asylum	5	1	6			
Absent on probation on 30th September, 1902	4	3	7			

TABLE No. 10.

Shewing in quinquennial period, the ages of those admitted, recovered and died during the year.

Ages.	Admitted.			Recovered.			Died		
	Males.	Females	Total.	Males.	Females	Total.	Males.	Females	Total.
From 10 to 15 years									
" 15 to 20 "	5	3	8	1	1	2	1		1
" 20 to 25 "	7	5	12	2	6	8	2		2
" 25 to 30 "	4	5	9	2	3	5	1		1
" 30 to 35 "	7	8	15	2	2	4	1	2	3
" 35 to 40 "	12	6	18	3		3	4	1	5
" 40 to 45 "	11	5	16	1	3	4	2	1	3
" 45 to 50 "	6	5	11	3		3	2		2
" 50 to 55 "	4	4	8	1	1	2		2	2
" 55 to 60 "	6	4	10	1	3	4	3	3	6
" 60 to 65 "	6	7	13	4	3	7	6	6	12
" 65 to 70 "	1	2	3				3	1	4
" 70 to 75 "	2	1	3				4	1	5
" 75 to 80 "	2	1	3				3	1	4
" 80 to 85 "	1		1				2		2
" 85 to 90 "									
" 90 to 95 "							1	1	2
Unknown									
Totals	74	56	130	20	22	42	35	19	54

TABLE No. 11.

Periods.	Duration of insanity prior to admission.	Length of residence of those remaining in asylum on 30th Sept.	Periods of treatment of those who were discharged during the year.		
			Cured.	Improved.	Unimproved
Under 1 month	13	11			1
From 1 to 2 months	16	7	2		
" 2 to 3 "	17	9			
" 3 to 4 "	10	6			
" 4 to 5 "	4	11	2	2	
" 5 to 6 "	5	31	2		
" 6 to 7 "	5	5	1		
" 7 to 8 "	3	3	8		
" 8 to 9 "	1	3	6	1	
" 9 to 10 "	1	5	6		
" 10 to 11 "	1	11	1		
" 11 to 12 "	4	3	3		
" 12 to 18 "	1	25	3		
" 18 months to 2 years	2	46	2		
" 2 to 3 years	3	65	1		
" 3 to 4 "	5	25	2		
" 4 to 5 "	1	67	1		
" 5 to 6 "	3	121			
" 6 to 7 "	2	80	1		
" 7 to 8 "	2	105	1		
" 8 to 9 "	4				
" 9 to 10 "	12				
" 10 to 15 "	10				
" 15 to 20 "	2				
" 20 years and upwards	3				
Totals	130	639	42	3	1

TABLE No. 12.

Shewing the nature of employment and the number of day's work performed by patients during the year.

Nature of employment.	Number of patients who worked.	days worked.		
		Male.	Female.	Total.
Carpenter's shop	5	1,240	.....	1,240
Tailor's shop	2	427	.....	427
Engineer's shop	3	962	.....	962
Mason work	5	992	.....	992
Repairing roads	10	1,450	.....	1,450
Wood yard and coal shed	2	610	.....	610
Bakery	3	1,041	.....	1,041
Laundry	23	1,530	5,494	7,024
Dairy	6	2,140	.....	2,140
Butcher's shop	2	730	.....	730
Piggery	2	720	.....	720
Painting	4	883	.....	883
Farm	36	9,085	.....	9,085
Garden	39	8,976	186	9,162
Grounds	30	5,462	.....	5,462
Stable	2	720	.....	720
Kitchen	14	1,240	3,140	4,380
Dining rooms	58	9,812	10,508	20,320
Officers' quarters	2	.....	690	690
Sewing	26	.....	5,212	5,212
Knitting	40	.....	3,108	3,108
Mending	19	160	3,812	3,972
Wards and halls	90	11,248	11,688	22,936
Storeroom	1	313	.....	313
General	124	19,840	19,462	39,302
Total	548	79,581	63,300	142,881

TABLE No. 13.

Shewing the counties and districts from which the patients remaining in residence on the 30th September, 1902, were originally received.

Counties and districts.	Male.	Female.	Total.	Counties and districts	Male.	Female.	Total.
Bruce	3	1	4	Northumberland	3	5	8
Carleton	65	68	133	Ontario	4	4	8
Dundas	9	7	16	Oxford	4	1	5
Durham	3	4	7	Parry Sound District	....	1	1
Elgin	2	2	4	Peel	2	1	3
Essex	2	2	4	Perth	4	1	5
Frontenac	3	9	12	Peterborough	4	2	6
Glengarry	5	11	16	Prescott	15	24	39
Grenville	7	16	23	Prince Edward	....	1	1
Grey	2	1	3	Renfrew	5	4	9
Haldimand	1	....	1	Russell	....	6	6
Halton	1	....	1	Simcoe	6	2	8
Hastings	5	19	24	Stormont	36	20	56
Huron	1	1	2	Thunder Bay District	2	....	2
Kent	4	1	5	Victoria	3	4	7
Lambton	4	1	5	Waterloo	2	....	2
Lanark	20	21	41	Wellington	3	1	4
Leeds	31	26	57	Wentworth	....	3	3
Lennox and Addington	2	5	7	York	33	32	65
Lincoln	1	2	3	Not classed, unknown, etc	11	2	13
Middlesex	6	11	17				
Nipissing District	....	1	1	Total	316	323	639
Norfolk	2	....	2				

TABLE No. 14.

Shewing work done in the sewing room during year ending September 30th, 1902.

Articles.	Made.	Repaired.	Articles.	Made.	Repaired.
Aprons	651	1,427	Sheets	904	1,092
Bedticks	72	138	Shirts	531	776
Cuffs (nurses)	39	....	Skirts	47	1,502
Caps (nurses)	88	....	Shrouds	41	....
Centre pieces and tidies	13	....	Stockings	117	863
Cushions	12	....	Socks	293	1,074
Chemises	289	1,775	Strait jackets	11	20
Curtains	79	81	Towels	678	192
Dresses	323	2,759	Toilet covers	37	134
Drawers (pairs)	405	2,642	Table cloths	133	261
Fichues	81	16	Undershirts	199	279
Lace (yards)	175	....	Uniforms	44	29
Matts (crocheted)	9	....	Waists	70	190
Mitts (pairs)	119	151	Miscellaneous articles	29	533
Nightgowns	76	404			
Pillowslips	431	594	Total	6,213	16,932
Pillowshams	217	....			

TABLE No. 15.

Shewing number of articles passing through the laundry during the year ending September 30th, 1902.

Aprons	18,606	Neckties	753
Blouses	1,431	Nightgowns	3,437
Blinds	99	Nightshirts	1,322
Blankets	3,446	Pillowslips	24,184
Bedticks	401	Pillowshams	1,361
Collars	2,777	Pillow ticks	156
Cuffs	2,467	Pinafores	154
Caps	53	Pudding cloths	109
Chemises	17,915	Stockings	2,878
Counterpanes	1,899	Socks	6,403
Coats	810	Sheets	37,086
Canvas quilts and rugs	119	Shirts	22,515
Corset covers	842	Skirts	12,297
Curtains	1,461	Table cloths	9,578
Corsets	23	Table napkins	2,407
Combinations	177	Toilet covers	906
Carpets	7	Towels	21,812
Drawers	9,646	Trousers	2,194
Dusters	126	Uniforms	484
Doylies	184	Vests	548
Dresses	6,841	Miscellaneous linen	1,584
Fichues	411		
Guernseys	2,829	Total	228,997
Handkerchiefs	4,259		

TABLE No. 16.

Shewing work done in tailor's shop for year ending September 30th, 1902.

Article.	Made.	Repaired.	Article.	Made.	Repaired.
Coats (uniform)	29	....	Overall pants	14	....
Overcoats	10	....	Combination suits	10	....
Coats	127	90	Horse blankets	...	5
Pants	202	96	Robes	....	8
Pants (uniform)	31	....			
Vests	12	5	Total	447	212
Overall jackets	12	8			

TABLE No. 17.

Shewing work done by carpenter for year ending September 30th, 1902.

	Made.	Repaired.
Bookcases	1	3
Benches	24	16
Chairs (common)	....	395
Chairs (rocking)	....	84
Lounges	....	22
Sofas	....	9
Doors	25	312
Locks	....	460
Keys	18	....
Sash and frames	8	30
Storm sash	6	8
Large brushes	9	30
Sinks	8	5
Step ladders	....	6
Tables	6	22
Washstands	....	4
Water closets, seats	12	42
Refrigerator locks	....	3
Locks, new	86	....
Stone boats	2	4
Meat boards	16	...
Cupboards	4	3
Patterns for furnace bars	3	....
Patterns for sewer covers	4	....
" dry kiln	1	....
" traps for kitchen pans	1	....
Blinds (Venetian, new tape)	20	....
Waiters, repaired, times	8	....
Shelves with brackets	24	...
Clothes racks for laundry	10	4
Letter case	1	....
Ladders	....	6
House for steam valves	1	....
Driving shed, 18 x 40 feet	1	...

Repaired sidewalks all round, 3,000 ft. plank.
Repaired track, 1,000 ft. maple.
Floored cow stable, new water trough; 4 new arms for cutting machine.
New floor in bath rooms and closets, repaired 8.
Laid new floors in cottages, 2,000 ft.
Made 6 moulds for fence copping.
Made 3 for corners, 1 for cresent, moulded same.
Put up 406 ft. iron fence, 2 cresents 12 ft. each.
Hung 4 gates.

TABLE No. 18.

Shewing work done by engineer for year ending September 30th, 1902.

Beds put up and removed	65
Beds repaired	17
Bells, electric, repaired	12
Boilers, tea and coffee, repaired	5
Battery, electric repairs	10
Covering boiler, repair	4
Closets, water, repairs on	120
" cleaned out	80
Engines repaired	2
Extinguishers, fire, charged up	6
Fixtures, gas, repairs	10
Grates repaired	4
Hose, fire, small, repaired	6
Heaters, Tobey, repaired	4
Tubs, bath, repaired	6
Taps refaced	50
" repaired	110
" put in	25
Tanks, expansion, changed	2
Taps, gas, repaired	85
Urinals cleaned out	40
Valves, steam and water, repaired	100
" radiator, air, put on	10
" refaced	50
" replaced	24
" flushing in tank closets	2
Windows repaired in tank closets	5
Whistle repaired	1
Wire, telephone, repaired	10
Washing machine repaired	2
" reservoir	2
" out large vault	23

2 new copper pans, 4x6 feet, all new connections made for same, in the kitchen.
Altered position of heaters in back dormitory of 2 cottages, and all connections for same.
One new washing machine placed in position and all connections made for same.
Pumped water for all purposes during the year, 18,657,901 gallons.

TABLE No. 19.

Shewing products of farm for year ending September 30th, 1902.

Hay	12 tons	$100
Silo corn	200 tons	400
Mangolds	2,000 bushels	300
Carrots	300 bushels	45
Turnips	500 bushels	$ 75
Potatoes	1,200 bushels	480
Total		$1,400

Stoned and ploughed three acres of new ground.

TABLE No. 20.

Shewing products of garden for the year ending September 30th, 1902.

Articles.	Quantity.	Rate.	Value.
		$ c.	$ c
Asparagus	311 bushels	3	9 33
Beans (green)	86 bushels	50	43 00
Beets	458 bunches	3	13 74
"	110 bushels	40	44 00
Corn (green)	659 dozen	8	52 72
" (fodder)	15 tons	2 00	30 00
Cabbage	3,000 heads	4	120 00
Cauliflower	350 heads	4	14 00
Celery	3,900 heads	4	156 00
Carrots	507 bunches	3	15 21
"	120 bushels	40	48 00
Cucumbers	98 dozen	10	9 80
Cress	54 bunches	4	2 16
Currants (red)	8 boxes	7	56
" (black)	113 boxes	10	11 30
Lettuce (under glass)	240 bunches	4	9 60
" (garden)	910 bunches	3	27 30
Onions	2,580 bunches	3	77 40
"	110 bushels	75	82 50
Parsnips	56 bushels	1 00	56 00
Peas (green)	90 bushels	50	45 00
Pumpkins	54 bushels	8	4 32
Peppers	3½ dozen	10	35
Rhubarb	3,200 bunches	3	96 00
Radishes	282 bunches	3	8 46
Raspberries	78 boxes	10	7 80
Strawberries	1,700 boxes	8	136 00
Spinach	104 bushels	40	41 60
Squash	75 bushels	6	4 50
Tomatoes	145 bushels	70	101 50
Flower Plants.			
Geraniums (zonales)	500	10	50 00
" (Saleroi)	150	6	9 00
Coleus	300	6	18 00
Miscellaneous flower plants	250	10	25 00
" "	140	15	21 00
" "	325	6	19 50
" "	540	3	16 20
	Total		1,426 85

TABLE No. 21.

Shewing work done by painter from November 8th, 1901, to September 30th, 1902.

Painted the walls and woodwork of all rooms in Cottage 6.
Put on 150 yds. burlap in Cottage 6.
Painted verandah and back porch at Superintendent's house.
Painted iron work of fence on south east side of asylum grounds.
Painted large dormitory in Cottage 5.
Painted large dormitory in Cottage D.
Painted 80 beds.
Painted back porches at Cottages D. E. and F. 4, 5 and 6, and main building.
Painted walls and woodwork of storeroom.
Painted walls and hall in administrative building.
Painted new stairs and caseing leading to fourth flat in executive building.
Painted new implement house.
Painted doors, window and sash, also summer kitchen of farmer's house.
Put on 100 yds. burlap in Hall A.
Painted hall and woodwork of Hall A.
Painted bathrooms and spray bath in Hall A. and Hall 1.
Painted one small and large waggon.
Painted ceilings in Cottages D. and E.
Painted one bedroom in Cottage E.

TABLE No. 22.

BROCKVILLE ASYLUM.—Farm Exchange Account for the year ended 30th September, 1901.

DISBURSEMENTS.

1901.				
Dec.	2,	To cash paid	J. M. Keeler, hire of horse, 5 months @ $3.00.	$ 15 00
"	2,	"	F. H. Clifford, 33 loads manure @ 60c.	19 80
"	2,	"	F. H. Clifford, rent of barn	12 50
"	2,	"	G. A. Rudd & Co., harness account	5 75
"	2,	"	R. B. Easton, blacksmith account	29 48
"	16,	"	G.T.R. Co., freight on straw	14 00
"	16,	"	S. M. Booth, one milch cow	40 00
"	16,	"	G. B. Burney, four loads manure @ 60	2 40
"	16,	"	J. McAvoy, 5.820 tons straw @ $6.00	32 40
"	16,	"	C Vanorman, one flute	39 00
"	27,	"	W. McNish, one milch cow	40 00
"	27,	"	James Reid, one milch cow	37 50
"	31,	To balance		211 82
				$499 65
1902.				
Jan.	2,	To cash paid	Booth Bros., one milch cow	$ 40 00
"	6,	"	Booth Bros., one milch cow	40 00
"	7,	"	W. R. Henderson, one milch cow	45 00
"	13,	"	Sangster & McQuaig, balance on straw	48 38
"	17,	"	C. B. Murray, two milch cows	80 00
"	17,	"	R. B. Phillips, one milch cow	37 00
"	29,	"	G. T. Railway, freight on straw	16 80
Feb.	11,	"	A. E. Cameron, feed	42 00
"	11,	"	P. Ferguson, blacksmith account	24 18
"	11,	"	R. B. Easton, blacksmith account	8 38
"	11,	"	Brockville & Prescott Toll Road Co., toll	10 00
"	11,	"	Joel Judson, one bob-sleigh	25 00
"	11,	"	P. F. Nolan, whiffletrees	1 50
Mar.	3,	"	W. E. Skinner, one milch cow	40 00
"	12,	"	S. S. Smades, three milch cows @ $45.00	135 00
"	12,	"	G. A. Rudd, harness account	3 60
"	12,	"	D. Armstrong, 3.820 tons straw @ $6.00	20 46
"	12,	"	A. E. Summers, 1.470 tons straw @ $6.00	7 41
"	12,	"	Wm. Hogan, 3.550 tons hay @ $8.00	14 20
"	31,	To balance		104 92
				$743 83
April	9,	To cash paid	Elgin Rowe, 3,410 tons hay @ $9.00	$ 28 84
"	19,	"	P. Ferguson, blacksmith account	8 11

RECEIPTS.

1901.				
Oct.	1,	By balance		$ 34 88
Nov.	11,	By cash from	F. Sutton, 650 lbs rags @ 40c per 100 lbs	2 60
"	25,	"	J. F. Tennant, 133 lbs. hides @ 7c	9 31
Dec.	19,	"	Bissell & Ross, 6 hogs, 1,910 lbs. @ 5½c	105 05
"	27,	"	R. A. Bush, 20 lbs. tallow @ 3½c	70
"	27,	"	Maintenance account, 3 pigs, 720 lbs. @ 7c	50 40
"	27,	"	Maintenance account, 2 cows, 1,111 lbs. @ 6½c	72 21
"	31,	"	Sundry persons, 87 young pigs	224 50
				$499 65
1902.				
Jan.	1,	By balance		$211 82
Feb.	28,	By cash from	Maintenance account, 2,725 lbs. beef @ 6½c	177 12
Mar.	3,	"	F. White, 730 lbs. rags @ 40c	2 92
"	21,	"	A. Vexler, 480 lbs. iron @ 40c	1 92
"	21,	"	A. Vexler, 840 lbs. iron @ 20c	1 68
"	26,	"	Maintenance account, 525 lbs. pork @ 7c	36 75
"	26,	"	Maintenance account, 525 lbs. beef @ 6½c	34 12
"	31,	"	Sundry persons, 104 young pigs	247 50
				$743 83
April	1,	By balance		$104 92
"	3,	By cash from	A. Vexten, 360 lbs. old hose @ $1 10	3 96

April	19,	To cash paid	G. A. Rudd & Co., harness account	$ 2 05
"	19,	"	P. Derosia, six loads manure @ 60c	3 60
"	19,	"	Joel Judson, one waggon nut	50
"	19,	"	F. H. Clifford, 31 loads manure @ 60c	18 60
"	19,	"	F. H. Clifford, rent of barn	12 50
May	2,	"	F. Warren, 42 bush. oats @ 50c	21 00
"	7,	"	Boyd & Co., painting vehicles	30 00
"	7,	"	R. B. Easton, blacksmith account	19 77
"	7,	"	A. S. Wright, repairing vehicles	45 35
"	16,	"	Jno. Miller, 1.60 tons hay @ $9.00	9 27
"	28,	"	M. J. Higgins, 47 loads manure @ 60c	28 20
"	28,	"	F. H. Clifford, clipping horse	1 50
"	28,	"	Jno. Miller, 2.140 tons hay @ $9 00	18 63
"	9,	"	Booth Bros,, one milch cow	40 00
"	27,	"	Jno. Miller, 6.1550 tons hay @ $9 00	60 97
"	27,	"	Joel Judson, repair account	7 30
June	30,	To balance		13 69
				$369 88

May	27,	By cash from	R. Bedlow, two pigs @ $8.00	$ 16 00
June	30,	"	Sundry persons, 98 young pigs @ $2.50	245 00
				$469 88

July	2,	To cash paid	G. A. Rudd & Co., harness account	$ 26 65
"	24,	"	R. B. Easton, blacksmith account	10 98
"	24,	"	G. A. Rudd & Co., harness repairs	5 10
"	24,	"	P. J. Murray, one milch cow	45 00
Aug.	1,	"	A. S. Wright, repairing vehicles	20 65
"	23,	"	R. B. Easton, blacksmithing account	17 15
"	29,	"	G. E. Sherwood, one milch cow	40 00
Sep.	1,	"	Jno. Miller, 4930 lbs. straw @ $5.00 ton	12 32
"	9,	"	Cossitt Bros., repairs, etc	80
"	9,	"	G. A. Rudd & Co., harness repairs	2 30
"	13,	"	W. H. Neilson, two milch cows @ $30.00	60 00
"	18,	"	S. J. Kilpatrick, six loads manure @ 60c	3 60
"	22,	"	G. R. Marshall, 9.1400 tons straw @ $8 00	77 60
"	29,	"	Alex. Miller, one milch cow	35 00
"	30,	To balance		193 46
				$550 61

July	1,	By balance		$ 13 69
"	2,	By cash from	A. Vexton, 1,000 lbs. old hose @ 1 1/5c per lb	11 00
"	22,	"	Bissell & Ross, two hogs, 845 lbs. @ 5½c	46 47
"	31,	"	Maintenance account, 1,320 lbs. beef @ 6½c	85 80
Aug.	22,	"	Maintenance account, 528 lbs. beef @ 6½c	34 32
Sep.	13,	"	W. H. Neilson, 932 lbs. tallow @ 3½c	32 62
"	13,	"	W. H. Neilson, 680 lbs. hides @ 6c	40 80
"	13,	"	W. H. Neilson, 199 lbs. hides @ 5½c	10 94
"	15,	"	Jno. McGee, 1 young pig	2 50
"	15,	"	Ross & Bissell, 2 hogs, 1,175 lbs. @ 5c	58 75
"	17,	"	R. Bedlow, one sow	15 00
"	17,	"	Maintenance account, 711 lbs. beef @ 6½c	46 22
		"	Sundry persons, 61 young pigs @ $2.50	152 50
				$550 61

Oct.	1,	By balance		$193 46

ANNUAL REPORT OF THE MEDICAL SUPERINTENDENT OF THE ASYLUM FOR THE INSANE, COBOURG, ONT., ENDING SEPTEMBER 30TH, 1902.

October 1st, 1902.

To R. Christie, Esq.,

Inspector of Asylums, Ontario :

Sir,—Pursuant to Statute, I have the honor to transmit to you the First Annual Report of this Asylum for the year ending September 30th, 1902. As the official year was well advanced before the Institution was opened for the admission of patients, our first year's report must necessarily be brief.

On January 14th, we received our first contingent of patients, 31 being transferred from Mimico Asylum, and 31 from London Asylum; on January 28th we received 29 from Toronto Asylum; on February 26th we received 40 from Hamilton Asylum ; and on March 25th we received 12 from Kingston Asylum. In adidtion to this, we received 2 outside patients on certificate by order of the Inspector, making in all 145 patients.

The total number of patients under treatment during the year was 145; of these three died from natural causes, and one was discharged, recovered. This was an acute case, a patient who had been in the Toronto asylum less than a year before being transferred to Cobourg. With the single exception of this one case, all our cases are of a chronic nature, and do not afford us much hope of reporting recoveries. Of the 145 patients, 81 were warrant cases and 64 certificate cases.

Ages of Patients in Residence September 30th, 1902.

Ages.	Patients.	Ages.	Patients.
From 20 to 25 years.....	3	From 50 to 55 years	19
From 25 to 30 years.....	5	From 55 to 60 years	20
From 30 to 35 years.....	11	From 60 to 65 years	19
From 35 to 40 years.....	18	From 70 to 75 years	6
From 40 to 45 years.....	13	From 70 to 75 years	6
From 45 to 50 years.....	19	From 75 to 80 years	1

There are in residence to day 141 patients, and there are 72 of those over fifty years of age, who have been many years in different Asylums.

Expenditure.

Our expenses on maintenance account must necessarily be higher for the first year of our history, so we cannot make favorable comparisons with other institutions of the Province. In making distinctions as to per capita cost of patients in different institutions, a great many things must be taken into consideration. A variety of causes, which tends to increase our per capita expenditure, is quite obvious, and is due to conditions over which we have no control. These need no explanation here.

Grounds.

Considerable work has been done on the grounds during the summer under the direction of the "Public Works Department." We now have a cement sidewalk at the front and around each side of the building, the grounds at the front terraced and sodded, a driveway at the front, also a roadway at the back to the rear of the grounds, and a new fence on the

front and on part of the west side of the grounds. It is very desirable that this fence should be extended around the whole of the grounds, at an early date, as the old fence is rotten and very much dilapidated.

Garden.

Nothing much has been done in the way of gardening this year. A small plot, on the north end of the grounds, was dug up and planted with corn, beans, tomatoes and cabbages, all of which yielded a fair return. The ground is not well adapted for gardening purposes, being heavy clay soil, stoney and wet. To be productive, it would have to be stoned and tile-drained, and under present conditions it is doubtful if the proceeds would repay the cost of the labor.

Amusements.

In the way of amusements we are handicapped, in not having an assembly hall wherein to hold an entertainment. During the summer months the "Sons of England Band" on several occasions very kindly volunteered their services and played for the patients on the grounds. We also gave the patients a picnic on the asylum grounds, when the "Boys' Brigade Band" very kindly gave us their gratuitous services in furnishing the music. The majority of the patients enjoyed it ; it formed a pleasant diversion, and, for the time being at least, infused a ray of sunshine into the clouded lives of those poor unfortunates.

Religious Services.

Religious services are held every Sunday morning at 9 o'clock. The west end of the corridor of hall 1 is used for this purpose ; it has a seating capacity for about 50 patients. Rev. Canon Spragge, Rev. Dr. Saunders, Rev. Mr. Marshall, Rev. Mr. Beatty, and Rev. Mr. Morton, all take their turn in officiating; Rev. Fr. Murray also looks after the spiritual wants of the Roman Catholic patients. These services are much appreciated by many of the patients. Our thanks are due those clergymen for their gratuitous services, in attending to the spiritual welfare of our patients.

Changes in the Staff.

It was a source of sincere regret to us all to lose the services of our former chief attendant, Miss Catheart. She took sick about the first of June, and for six weeks was prostrated by a severe illness. After convalescence she was granted leave of absence, with the hope that the change would prove beneficial, but unfortunately she was not able to resume her duties, and Miss Gunn was appointed to fill the position on the first of September. I am pleased to state that Miss Gunn gives promise of being a capable and efficient officer.

There have been several changes on our staff of nurses during the year, but in every instance the change has been for the better. We have now a capable staff of nurses, faithful in the discharge of their duties, devoted to the interests of the institution, and kind and attentive to those committed to their charge.

I beg to tender you, Sir, my sincere thanks for valuable advice and suggestions given me from time to time, pertaining to the administration of the institution. You have at all times, and under all circumstances, been willing in every way to assist me in carrying out the laudable work in which we are engaged.

In conlusion, let me express the hope that our institution will grow from a comparatively small beginning to meet the requirements which may be demanded of it, and that in future we may have greater scope, and better facilities for carrying out the most modern and approved methods in the care and treatment of the insane, that most pitiable class of human beings, who are deprived of the greatest of the God-given attributes, the power of reason and self-control.

I have the honor to be, Sir,

Your obedient servant,

E. C. McNICHOLL,

Medical Superintendent.

ANNUAL STATISTICAL REPORT

Of the operations of the Asylum for Insane, Cobourg, for the year ending 30th September, 1902.

TABLE No. 1.

Shewing movements of patients in the Asylum for the official year ending September 30th, 1902.

	Male.	Female.	Total.	Male.	Female.	Total.
Admitted during year :						
By Lieutenant-Governor's Warrant		81	81			
By Medical Certificate		64	64		145	145
Total number under treatment during year					145	145
Discharges during year :						
As recovered		1	1			
Total number of discharges during year		1	1			
Died		3	3			
Transferred					4	4
Remaining in asylum, 30th September, 1902					141	141
Total number admitted since opening of asylum					145	145
" discharged		1	1			
" died		3	3			
" transferred					4	4
" remaining 30th September, 1902					141	141

TABLE No. 2.

Shewing the maximum and minimum number of patients resident in the Asylum, the total number of days' stay of patients, and the daily average number of patients in the Asylum, from the 1st October, 1901, to 30th September, 1902.

	Male.	Female.	Total.
Maximum number of patients in residence (on the 25th of March)		144	144
Minimum " " " (on the 14th ot January)		62	62
Collective days' stay of all patients in residence during year		34,148	34,148
Daily average population		131-33	131.33

	Admissions of year.			Total admissions since opening.			
	Male.	Female.	Total.	Male.	Female.	Total.	Total.
Social state.							
Widowed		58	58		58	58	58
Single		87	87		87	87	87
Total		145	145		145	145	145
Religion.							
Presbyterians		24	24		24	24	24
Episcopalians		32	32		32	32	32
Methodists		36	36		36	36	36
Baptists		5	5		5	5	5
Roman Catholics		29	29		29	29	29
Quakers		1	1		1	1	1
Other denominations		13	13		13	13	13
Not reported		5	5		5	5	5
Total		145	145		145	145	145
Nationalities.							
English		14	14		14	14	14
Irish		26	26		26	26	26
Scotch		8	8		8	8	8
Canadian		92	92		92	92	92
United States		2	2		2	2	2
Other Countries		2	2		2	2	2
Unknowns		1	1		1	1	1
Total		145	145		145	145	145

TABLE No. 3.

Shewing the counties from which patients have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total admissions.		
	Male.	Female.	Total.	Male.	Female.	Total.
Brant		1	1		1	1
Elgin		2	2		2	2
Essex		1	1		1	1
Grey		6	6		6	6
Halton		2	2		2	2
Hastings		3	3		3	3
Huron		6	6		6	6
Kent		1	1		1	1
Lambton		3	3		3	3
Lennox and Addington		1	1		1	1
Lincoln		4	4		4	4
Middlesex		9	9		9	9
Northumberland and Durham		17	17		17	17
Ontario		8	8		8	8
Oxford		4	4		4	4
Peel		1	1		1	1
Perth		3	3		3	3
Peterborough		8	8		8	8
Renfrew		1	1		1	1
Simcoe		9	9		9	9
Stormont, Dundas and Glengarry		3	3		3	3
Victoria		4	4		4	4
Wellington		5	5		5	5
Wentworth		8	8		8	8
York		33	33		33	33
Not classed		2	2		2	2
Total admissions		145	145		145	145

TABLE No. 4.

Shewing the counties from which warranted cases have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total admissions.		
	Male.	Female.	Total.	Male.	Female.	Total.
Brant		1	1		1	1
Essex		1	1		1	1
Grey		3	3		3	3
Halton		1	1		1	1
Hastings		1	1		1	1
Huron		4	4		4	4
Kent		1	1		1	1
Lambton		1	1		1	1
Lennox and Addington		1	1		1	1
Lincoln		2	2		2	2
Middlesex		2	2		2	2
Northumberland and Durham		5	5		5	5
Ontario		5	5		5	5
Oxford		2	2		2	2
Peel		1	1		1	1
Perth		2	2		2	2
Peterborough		5	5		5	5
Renfrew		1	1		1	1
Simcoe		4	4		4	4
Stormont, Dundas and Glengarry		1	1		1	1
Victoria		3	3		3	3
Wellington		2	2		2	2
Wentworth		4	4		4	4
York		27	27		27	27
Not classed		1	1		1	1
Total admissions		81	81		81	81

TABLE No. 5.

Shewing the length of residence in the Asylum of those discharged during the year.

No.	Initials.	Sex.	When admitted.	When discharged.	Remarks.
1	M. B.	F.	January 28, 1902	June 28, 1902	Recovered.

TABLE No. 6.

Shewing age, length of residence and proximate cause of death of those who died during the year ending 30th September, 1902.

No.	Initials.	Sex.	Age.	Date of death.	Residence in Asylum.			Proximate cause of death.
					Years.	Months.	Days.	
1	M. P.	F.	80	April 10, 1902		1	21	Exhaustion of acute mania.
2	C. D.	F.	21	April 12, 1902		2	15	Cerebral meningitis.
3	L. A. D.	F.	49	June 9, 1902		4	26	Exhaustion of chronic mania.

TABLE No. 7.

Shewing trades, callings and occupations of patients admitted into the Asylum.

Trades, Callings and occupations.	During the year.			During former years.			Total.
	Males.	Females	Total.	Males.	Females	Total.	
Book-keepers		1	1				1
Domestic servants		46	46				46
Dressmakers		1	1				1
Housekeepers		57	57				57
Milliners		1	1				1
Music-teachers		1	1				1
No occupation		31	31				31
Not stated		1	1				1
Shoemakers		1	1				1
Teachers		4	4				4
Weavers		1	1				1
Total		145	145				145

TABLE No. 8.

Shewing causes of insanity.

Causes of insanity. In respect of the admissions for the year ending 31st September, 1902.	Number of instances in which each cause was assigned					
	As predisposing cause.			As exciting cause.		
	Male.	Female.	Total.	Males.	Females	Total.
Moral.						
Domestic troubles, including loss of relatives or friends	.....	.....	.....	.....	3	3
Religious excitement	.....	.....	.....	.....	3	3
Adverse circumstances, including business troubles	.....	.....	.....	.....	2	2
Love affairs, including seduction	.....	.....	.....	.....	3	3
Fright and nervous shocks	.....	.....	.....	.....	1	1
Physical.						
Intemperance in drink	.....	4	4	.....	4	4
Self-abuse, sexual	.....	3	3	.....	3	3
Over-work	.....	.....	.....	.....	1	1
Pregnancy	.....	.....	.....	.....	1	1
Puerperal	.....	.....	.....	.....	3	3
Lactation	.....	.....	.....	.....	1	1
Puberity and change of life	.....	.....	.....	.....	2	2
Uterine disorders	.....	.....	.....	.....	1	1
Brain disease, with epilepsy	.....	5	5	.....	.....	.....
Hereditary.						
With other ascertained cause in combination	.....	7	7	.....	.....	.....
With other combined cause not ascertained	.....	23	23	.....	.....	.....
Congenital.						
With other combined cause not ascertained	.....	1	1	.....	.....	.....
Unknown	.....	102	102	.....	117	117
Total	.....	145	145	.....	145	145

TABLE No. 9.

Shewing the probational discharges and result thereof.

Reg. No.	Sex.	Initials.	Date of probational discharge.	Term of probation.	Result.
70	F..	M.B.	June 28, 1902	2 months	Discharged, recovered.

SUMMARY OF PROBATIONAL DISCHARGES.

	Male.	Female.	Total.
Number to whom probational leave was granted	.....	1	1
Discharged, recovered	.....	1	1

TABLE No. 10.

Shewing in *quinquennial* period, the ages of those admitted, recovered and died during the year.

Ages.	Admitted.			Recovered.			Died.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
From 20 to 25 years		4	4					1	1
" 25 to 30 "		5	5						
" 30 to 35 "		11	11						
" 35 to 40 "		19	19		1	1			
" 40 to 45 "		13	13						
" 45 to 50 "		20	20					1	1
" 50 to 55 "		18	18						
" 55 to 60 "		19	19						
" 60 to 65 "		19	19						
" 65 to 70 "		7	7						
" 70 to 75 "		5	5						
" 75 to 80 "		1	1						
" 80 to 85 "		1	1					1	1
Unknown		3	3						
Totals		145	145		1	1		3	3

TABLE No. 11.

Periods.	Duration of insanity prior to admission.	Length of residence of those remaining in asylum on 30th September.	Period of treatment of those who were discharged during the year.		
			Cured.	Improved.	Unimproved.
From 5 to 6 months		1	1		
" 6 to 7 "	1	12			
" 7 to 8 "		40			
" 8 to 9 "		88			
" 10 to 11 "	1				
" 12 to 18 "	5				
" 18 months to 2 years	1				
" 2 to 3 years	3				
" 4 to 5 "	5				
" 5 to 6 "	5				
" 6 to 7 "	2				
" 7 to 8 "	6				
" 8 to 9 "	7				
" 9 to 10 "	3				
" 10 to 15 "	35				
" 15 to 20 "	18				
" 20 years and upwards	53				
Totals	145	141	1		

TABLE No. 12.

Shewing the nature of employment and the number of day's work performed by patients during the year.

Nature of employment.	Number of patients who worked.	Days worked.		
		Male.	Female.	Total.
Laundry	4		435	435
Kitchen	5		545	545
Dining rooms	9		1,365	1,365
Sewing rooms	9		989	989
Knitting	6		627	627
Mending	2		111	111
Wards	61		12,136	12,136
General	9		934	934
Total	105		17,142	17,142

TABLE No. 13.

Shewing the Counties and Districts from which the patients remaining in residence on the 30th September, 1902, were originally received.

Counties and Districts.	Males.	Females.	Totals.
Brant		1	1
Dundas		1	1
Durham		8	8
Elgin		2	2
Essex		1	1
Glengarry		1	1
Grey		6	6
Halton		2	2
Hastings		3	3
Huron		6	6
Kent		1	1
Lambton		3	3
Lennox and Addington		1	1
Lincoln		4	4
Middlesex		8	8
Northumberland		7	7
Ontario		8	8
Oxford		4	4
Peel		1	1
Perth		3	3
Peterborough		8	8
Renfrew		1	1
Simcoe		8	8
Stormont		1	1
Victoria		4	4
Wellington		5	5
Wentworth		8	8
York		33	33
Not classed, unknown, etc		2	2
Total		141	141

TABLE No. 14.

Showing number of Articles made and repaired in the Engineer's Department.

Articles.	Made.	Repaired	Articles.	Made.	Repaired
Basins		6	Locks and keys		23
Bath-room		1	Lawn mower		7
Boilers		2	Mangle		1
Bolts	16	3	Pumps		4
Closets		190	Steam joints		3
Cylinders		4	Shaker bars		4
Discs		7	Spray bath		9
Drying-room		5	Steam trap		2
Elevator		1	Tanks		2
Engine, laundry		1	Tubs, laundry		4
Extractor, laundry		2	Toby heater		2
Fan		2	Urns, coffee and tea		8
Fan, engine		9	Valves		54
Hot water taps		34	Washers	4	15
Hose, lawn		3	Washing machines		4
Kettle, roasting		1	Wringer belts		21

TABLE No. 15.

Report of Garden Produce.

Name.	Quantity.	Rate.	Value.
			$ c.
Apples	25 bushels	$0.50 bushel.	12 50
Beans	5 pecks	0.20 peck	1 00
Cabbage	14 dozen	0.50 dozen	7 00
Corn	37 dozen	0.09 dozen	3 33
Tomatoes	44½ bushels	1.00 bushel.	44 00
			$68 33

TABLE No. 16.

List of articles made in Sewing-room from Feb. 1st to Sept. 30th, 1902.

118 Patients, dresses.
21 Attendants, dresses.
54 Attendants, aprons.
14 Drawn-work table covers.
63 Embroidered shams.
109 Patients, aprons.
26 Yards knitted lace.
14 Sofa pillows.
5 Shrouds.
4 Pair mittens.
70 Pair stockngs.
60 Pair drawers.
278 Pillow cases.
549 Sheets.
56 Table cloths.
480 Towels.
6 Laundry bags.
113 Chemises.
46 Flannel shirts.
2 Quilts

ANNUAL REPORT OF THE MEDICAL SUPERINTENDENT OF THE ASYLUM FOR IDIOTS, ORILLIA, FOR THE YEAR ENDING SEPTEMBER 30TH, 1902.

James Noxon, Esq.,

Inspector of Asylums, Toronto, Ontario:

Sir,—I have the honor to transmit the twenty-sixth annual report of the operations of this Asylum, being for the year ending September 30th.

At the close of last year we had in residence 349 males and 302 females, making 651. During the year we admitted 29 males and 28 females, or 57 in all. There were discharged 9 males and 1 female; and the deaths numbered 22 males and 16 females. One male eloped, which makes 32 males and 17 females written off our books, leaving in residence at the close of the year 346 males and 313 females, being a total of 659. Our death rate during the year was low, as compared with several previous years, being 5 1-3 per cent. of the number under care.

We have no less than 465 applications on file. A very large number, but doubtless many of the applicants have since died, and many have changed residence, and could not be located at the present time. The number, however, for whom admission is urgently needed is so large as to bring up the consideration of more accommodation. In former reports suggestions were made showing how more room could be obtained, not only in this Asylum, but in all the Asylums; namely, to establish an Institution for the care and treatment of the hundreds who are suffering from epilepsy, and who are now scattered through the various Asylums. If all the epileptics were gathered together and cared for in one Institution, it would be more in accord with present day ideas. Such an Institution should be on the colony plan, as I have pointed out before. If this were done, more than one hundred vacancies could be made in this Asylum, which would go a long way towards meeting pressing demands.

Then, if two cottages were built on our grounds here for the custodial care of feeble-minded women of child-bearing age, some of our present inmates could be transferred to such, and thereby make more vacancies. There can be no question about the wisdom of this step, and until something of the kind is done the rapid increase in the number of feeble-minded will continue. But if the six or seven hundred feeble-minded women, many of whom are steadily adding to the idiotic and otherwise defective population of the Province, were confined in a custodial Asylum, the number of defectives, paupers, and petty criminals would decrease, and in less than one generation the cost for maintenance of public Institutions would be greatly lessened. These feeble-minded women could not only attend to the work of their own cottages, but could be utilized in doing work for the Institution, in the laundry and other domestic departments. I trust, therefore, that this matter will receive the consideration which I think its importance demands.

The Schools.

The schools were continued during the year, but, as they had lost all the distinctive features of a training school for the feeble-minded, and only taught the primary branches of the public school curriculum to a comparatively small number of our inmates, they have been discontinued. The chief object of all efforts to train the feeble-minded is to improve the condition, physical as well as mental. Many who are unable to walk can be trained to do so, and many mutes, who are not deaf, have been taught to

speak and read; many who are helpless can be made helpful to themselves and others, and useful about the wards and buildings. Those of the higher and medium grades, by manual training, could be taught simple trades, and become useful inmates of this or other Institutions.

With the four teachers to which our staff had been reduced, all of whom lacked the necessary qualifications, none of these lines of training were pursued. Under these circumstances, therefore, the Honorable the Provincial Secretary very wisely concluded to discontinue the schools, and it is to be hoped that they will soon be re-opened with a capable staff of teachers and instructors, and that the Institution and schools will not only be placed on the popular footing of years ago, but far in advance.

In similar Institutions in Europe and America various industrial trades are the chief features of the training. For instance, carpentering, shoemaking, tailoring, mattress and mat making, basket making, broom and brush making, are trades which could be easily mastered by the better grade, provided we were supplied with intelligent, sympathetic and painstaking instructors. To lead up to this, however, it is very desirable that a certain amount of primary education should be imparted. They should be able to read and write fairly well, and to work the four simple rules of arithmetic, addition, subtraction, multiplication and division; further than this it is not necessary to go. Kindergarten exercises are essential to the successful training of the feeble-minded; in fact, should be the foundation of all school work. They should not stop with the low grade or junior classes, but, to a certain extent, should be carried through all the classes. The higher grade, or brighter, children profit by the kindergarten to a large extent, by becoming more amenable to discipline, in the formation of habits of promptness, and in making them more graceful in their movements. To the medium grade it is invaluable. They learn to think, to use their hands and eyes, and it is an excellent preparation for manual training. With the low grade only physical training is of use, and, perhaps, more care should be taken in selecting teachers for this class than for the better class. It is a fact that the first efforts made in America to educate, or, rather, train the idiotic, were with the low grade; and so successful were these efforts that the work was taken up by State after State, until now nearly all have Institutions for the feeble-minded, and they are amongst the most popular in their respective States.

Improvements.

Owing to the rain throughout the summer, and the unusually high water in the lake, nothing was done beyond the railway track. This work will have to stand until a more favorable season.

An excellent wire fence was built around the property bordering on the highway, and also on the boundary line betwen our neighbors and the garden and the orchard.

Electric Light.

The work of installing electric light and power is not yet completed, but it is so well under way that we expect before many weeks pass to have all our buildings lighted by this system. Judging from present appearances, the plant is going to be an excellent one.

A new fire pump has also been installed, contiguous to the boiler house, and the water main was connected with it, so there will be direct pressure on all the hydrants.

Wants.

Among our more pressing wants is more room for our root crops. This year we will not be able to store our potatoes in the root cellar, as the garden vegetables will completely fill it. It will be necessary, therefore, to store them in the basement rooms of the buildings, which is very objectionable, and not pleasant for those living and sleeping immediately over them; besides being very unsanitary.

Coal Vaults.

For reasons given over and over again from year to year, I again recommend the erection of coal vaults adjoining the boiler house. This want is proving more urgent, as the sheds threaten to collapse. For convenience, safety, and economy this work should not be further delayed.

Silo.

Our silo, commenced several years ago, has never been finished, and once more I would direct attention to this very necessary work. With our large herd of cows, it would be economy to complete it. Some of our neighbors have silos, and they find them paying investments. Surely, then, a large Institution, such as this has become, with an average herd of twenty-eight cows, should have a first-class silo.

Garden.

The gardens and small fruit yielded fairly well. This year the unusual amount of rain, and the heavy downpour at times, did a great deal of damage by washing out the seeds on several occasions; in fact, some had to be sown three times.

The orchard and small fruit cover nearly all of what was formerly used for vegetables, and it is now proposed to make our vegetable garden to the south side of the buildings, where there is excellent soil. With the large quantity of small fruit, and the orchard, the gardener has more than he can properly attend to, and I would recommend the appointment of an assistant.

The yield this year has been as follows :

Asparagus	272 bunches.
Beans	55 bushels.
Beets	240 bushels.
Cabbage	6,000 heads.
Cauliflower	175 heads.
Cucumbers	37 dozen.
Corn	383 dozen.
Carrots	350 bushels.
Celery	2,500 heads.
Lettuce	6,695 heads.
Marrow and Squash	10 dozen.
Onions (dried)	300 bushels.
Onions (green)	200 bunches.
Parsnips	200 bushels.
Peas (green)	33 bushels.
Peppers	5 dozen.
Rhubarb	8,559 bunches.
Radish	917 bunches.
Spinach	49 bushels.
Potatoes	29 bushels.
Horse Radish	147 bunches.
Parsley	75 bunches
Mint	20 bunches.
Sage	125 bnnches.
Savory	60 bunches.

Fruit.

Apples	46 bushels.
Red Currants	207 quarts.
White Currants	529 quarts.
Black Currants	802 quarts.
Raspberries	1,404 quarts.
Strawberries	1,021 quarts.
Gooseberries	1,821 quarts.
Pears	1 bushel.
Plums	3½ pecks.

The total value would be $1,334.58.

Maintenance.

The per capita cost for maintenance is again low, being $92.60, about the average of the last few years. It is almost needless to say that the greatest care and economy have to be observed to keep the rate so low; in fact, the service suffers somewhat from it, and I would advise a slight increase under this head. It may be gratifying to know that the per capita cost of this Asylum is the lowest in the world, but if this is obtained at the expense of efficiency it is nothing to be proud of.

Some few weeks ago, I was asked for a statement of our expenditure by the Fiscal Supervisor of the State Charities of New York State. After receiving our statement, he says in a letter of acknowledgment, "By comparison with other similar Instituions throughout the country, it appears that your per capita cost is considerably below the average."

There should be a slight increase in our maintenance in the matter of wages, as we have not a sufficient number of attendants for the number of inmates. To do the patients and the Institution justice, there should be two more female attendants, and at least one male attendant, which would enable us to do better and more satisfactory work in and about the Institution.

There have been few changes in our staff since last report, the only one of importance being the transfer of Dr. Clare to Brockville, and the appointment of Dr. T. J. Moher in his place here. I am glad to say that I find in Dr. Moher a very agreeable and efficient officer, and I have no doubt he will fill the position with credit to himself and advantage to the Institution.

The attendants and employees, generally, have shown an increased interest in the improvements in and around our Institution, and I am glad to say that, with hardly an exception, all have given good satisfaction.

I have the honor to be, Sir,

Your obedient servant,

A. H. BEATON,

Medical Superintendent.

15th October, 1902.

ANNUAL STATISTICAL REPORT

Of the operations of the Asylum for Idiots, Orillia, for the year ending 30th September, 1902.

TABLE No. 1.

Shewing movements of patients in the Asylum for the official year ending September, 1902.

	Male.	Female.	Total.	Male.	Female.	Total.
Remaining, October 1st, 1901	.....	.....	.....	349	302	651
Admitted during year :—						
By Lieutenant-Governor's Warrant	2	3	5			
" Medical Certificate	27	25	52			
				29	28	57
Total number under treatment during year	.....	.....	.....	378	330	708
Discharges during year :—						
" unimproved	9	1	10			
Total number of discharges during year	9	1	10			
Died	22	16	38			
Eloped	1	.....	1			
				32	17	49
Remaining in Asylum, 30th September, 1902.	.....	.....	.....	346	313	659
Total No. admitted since opening of Asylum.				852	753	1,605
" discharged				78	54	132
" died				405	364	769
" eloped				3	.....	3
" transferred				20	22	42
" remaining, 30th September, 1902	.....	.....	.....	346	313	659
Number of applications on fyle	.....	.....	.....	278	187	465

TABLE No. 2

Shewing the maximum and minimum number of patients resident in the Asylum, the total number of days' stay of patients, and the daily average number of patients in the Asylum, from the 1st October, 1901, to 30th September, 1902.

	Male.	Female.	Total.
Maximum No. of patients in residence (on the 20th July 1902)..	353	310	663
Minimum " " " (on the 5th of Dec. 1901).	343	304	647
Collective days' stay of all patients in residence during year....	127,473	112,112	239,585
Daily average population	349	307	656

Social State.	Total Admissions since Opening.			Admissions of Year.		
	Male.	Female.	Total.	Male.	Female.	Total.
Married ..				2	9	11
Widowed					1	1
Single	29	28	57	850	743	1,593
Total	29	28	57	852	753	1,605
Religion.						
Presbyterians	4	7	11	147	146	293
Episcopalians	5	3	8	163	166	329
Methodists	6	5	11	223	190	413
Baptists	2		2	34	28	62
Congregationalists				2	1	3
Roman Catholics	9	6	15	144	95	239
Mennonites				12	6	18
Quakers				3	1	4
Other denominations	1	1	2	29	35	64
Not reported	2	6	8	95	85	180
Total	29	28	57	852	753	1,605
Nationalities.						
English	4	4	8	50	48	98
Irish	3	2	5	47	39	86
Scotch	2	1	3	27	19	46
Canadian	19	19	38	677	600	1,277
United States				8	11	19
Other countries				16	11	27
Unknown	1	2	3	27	25	52
Total	29	28	57	852	753	1,605

TABLE No. 3.

Shewing the Counties from which patients have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total admissions.			Total.
	Male.	Female.	Total.	Male.	Female	Total.	
Algoma District				4	8	12	12
Brant	1	1	2	12	14	26	26
Bruce	2		2	26	24	50	50
Carleton	2	2	4	30	20	50	50
Dufferin				2	8	10	10
Elgin		1	1	7	14	21	21
Essex	3		3	22	16	38	38
Frontenac	1		1	34	32	66	66
Grey				28	29	57	57
Haldimand		1	1	19	5	34	24
Halton				12	9	21	21
Hastings				15	22	37	37
Huron	1	1	2	28	18	46	46
Kent	1	1	2	17	23	40	40
Lambton		1	1	18	16	34	34
Lanark				9	5	14	14
Leeds and Grenville	1		1	26	17	43	43
Lennox and Addington				17	12	29	29
Lincoln				6	4	10	10
Middlesex	1	1	2	42	25	67	67
Muskoka District	2		2	15	9	24	24
Norfolk				8	10	18	18
Northumberland and Durham				23	28	51	51
Ontario	2	1	3	31	22	53	53
Oxford	1		1	20	17	37	37
Peel	1		1	6	16	22	22
Perth	1	1	2	12	17	29	29
Peterborough				7	13	20	20
Prescott and Russell				1	3	4	4
Prince Edward				5	10	15	15
Renfrew	1		1	4	11	15	15
Simcoe		3	3	62	54	116	116
Stormont, Dundas and Glengarry				29	9	38	38
Victoria	1		1	19	11	30	30
Waterloo	1		1	19	18	37	37
Welland				6	8	14	14
Wellington	1	2	3	23	10	33	33
Wentworth	3	1	4	37	34	71	71
York	2	9	11	143	125	268	268
Not Classed				8	5	13	13
Parry Sound		2	2			2	2
Total admissions	29	28	57	852	753	1,605	1,605

TABLE No. 4.

Shewing the Counties from which warranted cases have been admitted up to 30th September, 1902.

Counties.	Admitted during year.			Total admissions.			
	Male.	Female.	Total.	Male.	Female.	Total.	Total.
Algoma District					1	1	1
Brant				1		1	1
Bruce				5	3	8	8
Carleton				5	4	9	9
Dufferin					2	2	2
Elgin					4	4	4
Essex				2	3	5	5
Frontenac				13	13	26	26
Grey				9	5	14	14
Haldimand				3		3	3
Halton				1	2	3	3
Hastings				2	4	6	6
Huron				5	3	8	8
Kent					3	3	3
Lambton				2	4	6	6
Lanark				4	1	5	5
Leeds and Grenville				6	3	9	9
Lennox and Addington				2	7	9	9
Lincoln				2	2	4	4
Middlesex				4	1	5	5
Muskoka District				2	1	3	3
Norfolk				5	5	10	10
Northumberland and Durham				5	3	8	8
Ontario				4	1	5	5
Oxford				7	1	8	8
Peel	1		1	2	3	5	5
Perth				5	2	7	7
Peterborough					3	3	3
Prescott and Russell					1	1	1
Prince Edward							
Renfrew				1	5	6	6
Simcoe				10	6	16	16
Stormont, Dundas and Glengarry				17	1	18	18
Victoria				4	1	5	5
Waterloo				1		1	1
Welland					1	1	1
Wellington		1	1	2	2	4	4
Wentworth		1	1	3	8	11	11
York	1	1	2	13	9	22	22
Not Classed					1	1	1
Total admissions	2	3	5	147	119	266	266

TABLE No. 5.

Shewing the length of Residence in the Asylum of those discharged during the year.

No.	Initials.	Sex.	When admitted.	When discharged.	Remarks.
1	R.C	M	Oct. 15, 1894	Nov. 30, 1901	Unimproved.
2	L.P	M	Jan. 24, 1900	" 30, "	"
3	J.P	M	Sept. 11. "	" 30, "	"
4	B.T	M	Mar. 31, "	" 30, "	"
5	D.H	M	Nov. 27, 1895	" 30, "	"
6	C S	M	Nov. 28, 1901	" 30, "	"
7	L.M.C	F	Mar. 8, 1902	Apr. 19, 1902	"
8	H.B.M	M	Aug. 4, 1899	Aug. 18, "	"
9	E.A	M	July 7, 1898	June 1, "	"
10	R.T	M	Dec. 13, 1894	Feb. 18, "	"

TABLE No. 6.

Shewing age, length of residence, and proximate cause of death of those who died during the year ending 30th September, 1902.

No.	Initials.	Sex.	Age.	Date of death.	Residence in Asylum.			Approximate cause of death.
					Years.	Months	Days.	
1	B.M	F	34	Oct. 12, 1901	1	3	29	Tuberculosis.
2	M.L	F	15	" 12, "	9	4	29	Gen. Debility.
3	M.B	F	32	Nov. 13, "	5	4	27	Phthisis.
4	S.W	F	24	" 18, "	24	1	1	Epilepsy.
5	A.E	F	30	" 18, "		9	18	Heart Disease.
6	R.M	M	18	" 20, "	4	4	6	Epilepsy.
7	G.R	M	11	" 20, "	1	3	7	Gastro Enteritis.
8	J.I	M	23	" 24, "	9	6	19	Phthisis.
9	J.N.J	M	5	Dec. 1, "			3	Epilepsy.
10	J.E.P	M	48	" 1, "		11	7	General Debility.
11	S.W	F	58	" 16, "	2	9	1	General Debility.
12	L.L	M	14	" 25, "	4	7	4	Epilepsy.
13	M.E.W	F	33	" 25, "	9	3	4	Phthisis.
14	J S	M	27	Jan. 18, 1902	5	6	17	Phthisis.
15	M.E.B	F	29	Feb. 8, "	2	8	13	Phthisis.
16	N.M.N	M	29	" 17, "	6	9	4	Phthisis.
17	C.S	M	38	" 22, "	14	2	15	Gen. Debility.
18	B.J.W	F	44	Mar. 4, "	4	6	8	Gen. Debility.
19	J.G	M	19	Apl. 17, "	1	2	24	Phthisis.
20	S.M.L	F	65	" 25, "	10	6	2	Gen. Debility.
21	Z M	F	14	" 29, "	1	8	1	Epilepsy.
22	W.N	M	20	May 19, "	7	3	19	Tuberculosis.
23	F.M.E	F	26	" 29, "		9		Epilepsy.
24	W.J.H	M	19	" 31, "	8	7	1	Tuberculosis.
25	W.C	F	16	June 12, "	3	10	8	Phthisis.
26	H.H	M	26	" 17, "	9	11	6	Tubercular Larynge.
27	C.L	M	33	July 4, "	7	7	9	Phthisis.
28	E.E	M	18	" 5, "	2	11	29	Gen. Debility.
29	W.C	M	8	" 9, "	2	3	28	Thermic Fever.
30	J.K	M	42	" 22, "	25	9	28	Acute Nephrites.
31	H.E.F	M	32	" 23, "	17	11	10	Rheumatism.
32	W.J.S	M	34	" 24, "		7	15	Epilepsy.
33	J.H	M	50	Aug. 8, "	25	7	19	Gen. Debility
34	E.J.M	F	39	" 16, "	2	8	14	Heart Disease.
35	F.S	M	18	" 25, "	6	11	7	Epilepsy.
36	E.T.M	F	10	Sept. 13, "	3	4	22	Heart Disease.
37	E.B	F	23	" 20, "	5	2	29	Heart Disease.
38	R.Y	M	25	" 20, "	20	5	16	Phthisis.

TABLE No. 7.

Shewing in *quinquennial* period, the ages of those admitted, recovered and died during the year.

Ages.	Admitted.			Recovered.			Died.		
	Males.	Females	Total.	Males.	Females	Total.	Males.	Females	Total.
Under 10 years	7	3	10				2		2
From 10 to 15 years	4	4	8				2	2	4
" 15 " 20 "	5	5	10				5	2	7
" 20 " 25 "	4	5	9				2	2	4
" 25 " 30 "	3	2	5				4	2	6
" 30 " 35 "	2	1	3				3	4	7
" 35 " 40 "	2	2	4				1	1	2
" 40 " 45 "	1	4	5				1	1	2
" 45 " 50 "	1	1	2				1		1
" 50 " 55 "		1	1				1		1
" 55 " 60 "									1
" 65 " 70 "									1
Totals	29	28	57				22	16	38

TABLE No. 8.

Periods.	Length of residence of those remaining in asylum on 30th September.	Periods.	Length of residence of those remaining in Asylum on 30th September.
Under 1 month	3	From 2 to 3 years	34
From 1 to 2 months	5	" 3 " 4 "	53
" 2 " 3 "	2	" 4 " 5 "	36
" 3 " 4 "	7	" 5 " 6 "	46
" 4 " 5 "	4	" 6 " 7 "	43
" 5 " 6 "	4	" 7 " 8 "	28
" 6 " 7 "	6	" 8 " 9 "	8
" 7 " 8 "	2	" 9 " 10 "	42
" 8 " 9 "	7	" 10 " 15 "	145
" 9 " 10 "	6	" 15 " 20 "	52
" 10 " 11 "	10	" 20 years and upwards	66
" 11 " 12 "	1		
" 12 " 18 "	23	Totals	659
" 18 months to 2 years	26		

TABLE No. 9.

Shewing the nature of employment and the number of day's work performed by patients during the year.

Nature of employment.	No. of patients who worked.	Days worked.		
		Male.	Female.	Total.
Carpenter shop	2	312		312
Tailor shop	6	1,252		1,252
Wood yard and coal shed	8	1,240		1,240
Bakery	3	939		939
Laundry	22	1,721	4,607	6,328
Dairy	7		2,510	2,510
Butcher shop and slaughter house	2	156		156
Piggery	2	730		730
Painting	1	260		260
Farm	12	1,872		1,872
Garden	10	1,405		1,405
Grounds	12	1,872		1,872
Stable	4	1,277		1,277
Kitchen	17	820	1,408	2,228
Dining rooms	34	4,380	7,240	11,620
Officers' quarters	4	365	1,060	1,425
Sewing rooms	7		1,904	1,904
Knitting	37		7,214	7,214
Mending	20		1,040	1,040
Wards	188	27,375	41,145	68,520
Halls	10	2,791	626	2,817
Storeroom	1	313		313
General	18	2,191	2,738	4,929
Boiler house	4	1,090		1,090
Gas house	2	730		730
Superintendent's house	3		1,085	1,085
Total	436	52,491	72,577	125,068

TABLE No. 10.

Shewing the Counties and Districts from which the patients remaining in residence on the 30th September, 1902, were originally received.

Counties and Districts.	Male.	Female.	Total.
Algoma District	1	5	6
Brant	5	6	11
Bruce	10	7	17
Carleton	10	8	18
Dufferin	2	2	4
Dundas	3	3	6
Durham	2	3	5
Elgin	2	3	5
Essex	12	6	18
Frontenac	15	9	24
Glengarry	4	....	4
Grenville	.....	1	1
Grey	10	8	18
Haldimand	5	2	7
Halton	2	5	7
Hastings	7	10	17
Huron	12	4	16
Kent	5	9	14
Lambton	7	8	15
Lanark	3	1	4
Leeds	10	5	15
Lennox and Addington	9	6	15
Lincoln	2	....	2
Middlesex	29	8	37
Muskoka District	7	4	11
Nipissing District	1	.....	1
Norfolk	4	4	8
Northumberland	3	4	7
Ontario	7	8	15
Oxford	10	6	16
Parry Sound District	3	2	5
Peel	3	6	9
Perth	3	6	9
Peterborough	4	5	9
Prescott	1	.....	1
Prince Edward	3	2	5
Renfrew	2	4	6
Russell	.....	1	1
Simcoe	18	31	49
Stormont	4	.....	4
Victoria	5	3	8
Waterloo	6	10	16
Welland	2	3	5
Wellington	9	5	14
Wentworth	14	15	29
York	69	73	142
Not classed, unknown, etc	1	2	3
Total admissions	346	313	659

TABLE No. 11.

ORILLIA ASYLUM - Farm Exchange Account for the year ending 30th September, 1902.

DISBURSEMENTS.

1901.				
Oct. 1,	To cash paid	G. T. Railway, freight		$ 3 86
" 5,	"	J. Johnston, 1 milch cow		35 00
" 7,	"	Tudhope & Co., harness		10 00
" 15,	"	J. Johnston, 8 pigs, $2.50		20 00
" 18,	"	W. J. Walker, 4 pigs, $2.50		10 00
" 19,	"	D. T. Fletcher, 7 " "		17 50
Nov. 1,	"	W. S. Thomson, 5 " "		12 50
" 2,	"	G. Street, garden plants		10 50
" 5,	"	A. Tait, lumber for tool house		31 06
" 7,	"	Macnab Bros., hardware for tool house		9 98
" 7,	"	J. Grant, 6 chickens, 25c		1 50
" 23,	"	N. Powell, 15 prs. chickens, 50c		7 50
Dec. 4,	"	J. Allan, 5 pigs, $3.00		15 00
" 7,	"	W. Allan, 16 chickens, 25c		4 00
" 11,	"	P. Jamieson, 23 elec. light poles, $4.00		92 00
" 18,	"	Macnab Bros , 6 coal shovels, $1.10		6 60
" 31,	To balance			1,763 41
				$ 2,050 41
1902.				
Jan. 21,	To cash paid	A. Calvery, 1 milch cow	$ 34 00	
" 29,	"	A. Kerr, 1 milch cow	35 00	
" 29,	"	R. Mandsley, 1 milch cow	36 00	
Feb. 11.	"	A. Kerr, 1 milch cow	35 00	
" 11,	"	W. Harvie, 1 milch cow	39 00	
" 12,	"	Macnab Bros., 6 coal shovels, $1.10	6 60	
Mch. 1,	"	H. Cook & Co., seeds	25 08	
" 13,	"	Jas. Johnston, 1 milch cow	35 00	
" 16,	"	N. Jamieson, 1 milch cow	37 00	
" 31,	To balance		1,712 73	
			$ 1,995 41	
Apr. 1,	To cash paid	L. McKinnon, 1 milch cow	$ 35 00	
" 1,	"	McNabb Bros., 6 coal scoops, $1.10	6 60	
" 11,	"	M. Boy, 1 milch cow	35 00	
" 15,	"	M. T. Moffatt, 1 bag seed potatoes	1 00	
" 19,	"	V. Nan Norman, rep. to buggy	30 25	
" 19,	"	S. A. Geack, rep. to buggy	15 85	
" 22,	"	G. T. Railway, freight	58	
" 22,	"	Spramotor Co , 1 spramotor	28 45	
" 23,	"	J. R. Harvie, 1 milch cow	37 00	

RECEIPTS.

1901.			
Oct. 1,	By balance		$ 1,229 85
" 7,	By cash from	Victoria Lumber Co., iron pipe	66 54
" 7,	"	A. Allan, charcoal	10 00
" 15,	"	W. J. Walker, 4,840 lbs. hogs at 6c	290 40
" 21,	"	Elias Rogers Co., unloading coal	420 55
Nov. 4,	"	J. Rowe, old retorts	5 00
" 12,	"	Hunt Bros., unloading flour	6 00
" 26,	"	J. Rowe, 2,750 lbs. rags at 65c per cwt	17 87
Dec. 2,	"	J. Rowe, 1,400 lbs. scrap iron at 30c per cwt	4 20
			$ 2,050 41
1902.			
Jan. 1,	By balance		$ 1,763 41
Feb. 1,	By cash from	A. Kerr, 3 dry cows	110 00
" 11,	"	" 2 "	80 00
Mch. 12,	"	" 1 "	42 00
			$ 1,995 41
Apr. 1,	By balance		$ 1,712 73
" 3,	By cash from	A. Kerr, 2 dry cows	81 00
" 16,	"	" 1 "	30 00
May 1,	"	W. J. Walker, 5,780 lbs. hogs at $6.35	367 03
" 1,	"	A. Kerr, 1 dry cow	45 00
" 5,	"	J. T. Johnston, 9470 lbs. scrap iron at $7.50 ton	35 51
" 5,	"	" 7,640 lbs. bones at $7.00 ton	26 74
" 5,	"	" 1,670 lbs. rags at $14.00 ton	11 69
June 4,	"	A. Kerr, 1 dry cow	40 00

TABLE No. 11.—*Concluded.*

Disbursements.				Receipts.			
May 1,	To cash paid	A. McPhee, 3 small pigs	6 00				
" 1,	"	D. Bell, 10 small pigs	24 00				
" 1,	"	S. Woods, 6 small pigs	15 00				
" 3,	"	Brown Bros., fruit trees	18 00				
" 3,	"	McNabb Bros., garden tools	34 45				
" 16,	"	D. Fletcher, 10 small pigs	25 00				
" 19,	"	D. Coffey, 1 milch cow	36 00				
" 19,	"	B. Johnston, 1 milch cow	35 00				
June 3,	"	D. C. Thompson, seed peas	5 60				
" 3,	"	Tudhope & Co., farm truck	46 24				
" 7,	"	A. McPherson, plough points	5 25				
" 30,	To balance		1,909 43				
			$ 2,349 70				$ 2,349 70
July 7,	To cash paid	Macnab Bros., garden tools	$ 48 65	July 1,	By balance		$ 1,909 43
" 15,	"	Photo Carbon Studio, photo of Premier	5 60	Sept. 4,	By cash from A. Kerr, 2 dry cows		80 00
" 19,	"	C. Salter, work on grounds	72 31	" 30,	" " " 1 "		35 00
" 22,	"	A. Tait, lumber	19 27				
Aug. 5,	"	H. Phillips, repairing pump	5 00				
" 8,	"	C. Salter, work on grounds	30 00				
" 9,	"	T. Dunn, fence posts	28 25				
" 16,	"	L. Shaw, 1 milch cow	40 00				
" 19,	"	Clarke & Black, wire fencing	135 53				
Sept. 4,	"	J. Allan, 1 milch cow	40 00				
" 17,	"	F. Gannon, 1 milch cow	40 00				
" 30,	To balance		1,559 82				
			$ 2,024 43				$ 2,024 43

ANNUAL STATISTICAL REPORT

OF THE

Operations of the Asylum for Insane, Homewood Retreat, Guelph, for the year ending 30th September, 1902.

TABLE No. 1.

Shewing movements of patients in the Asylum for the official year ending September 30, 1901.

	Male.	Female.	Total.	Male.	Female.	Total.
INSANE BRANCH.						
Remaining, October 1st, 1901	.....	.....	.....	4	12	16
Admitted during year -						
By Medical Certificate	.....	.....	.....	11	22	33
Total number under treatment during year	.....	.....	.....	15	34	49
Discharges during year—						
As recovered	4	7	11			
" improved	.....	2	2			
" unimproved	2	4	6			
Died	.....	1	1			
Transferred	2	2	4			
Total number of discharges during year	.....	.....	.....	8	16	24
Remaining in Asylum, 30th September, 1901	.....	.....	.....	7	18	25
Total number admitted since opening of Asylum	.....	.....	.....	150	140	290
" discharged	120	116	236			
" died	20	6	26			
" eloped	3	.....	3			
" transferred	.....	.....	.....	143	122	265
" remaining, 30th September, 1902	.....	.....	.....	7	18	25
VOLUNTARY BRANCH.						
Remaining, October 1st, 1901	.....	.....	.....	4	2	6
Admitted during year—						
By Medical Certificate	.....	.....	.....	29	9	38
Total number under treatment during year	.....	.....	.....	33	11	44
Total number of discharges during year	26	8	34			
Eloped	2	.....	2			
Transferred	.....	.....	.....	28	8	36
Remaining in Asylum, 30th September, 1902	.....	.....	.....	5	3	8
Total number admitted since opening of Asylum	.....	.....	.....	361	63	424
" discharged	344	60	404			
" died	7	.....	7			
" eloped	5	.....	5			
" transferred	.....	.....	.....	356	60	416
" remaining, 30th September, 1902	.....	.....	.....	5	3	8

THIRTY-FIFTH ANNUAL REPORT

OF THE

INSPECTOR OF

PRISONS AND REFORMATORIES

OF THE

PROVINCE OF ONTARIO,

BEING FOR THE YEAR ENDING 30TH SEPTEMBER,

1902.

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO.

TORONTO:
Printed and Published by L. K. CAMERON,
Printer to the King's Most Excellent Majesty.
1903.

WARWICK BROS & RUTTER,
Printers.

OFFICE OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES, ONTARIO.

PARLIAMENT BUILDINGS, TORONTO, November, 1902.

SIR,—I have the honor to submit herewith, to be presented to His Honor the Lieutenant-Governor, the Thirty-fifth Annual Report upon the Common Gaols, Prisons and Reformatories of the Province of Ontario, being for the official year ending 30th September, 1902.

I have the honor to be, Sir,

Your obedient servant,

T. F. CHAMBERLAIN,
Inspector.

THE HONORABLE J. R. STRATTON, M.P.P.,
Secretary of the Province of Ontario,
Toronto.

PARLIAMENT BUILDINGS,
TORONTO, November, 1902.

To the Honorable SIR OLIVER MOWAT, *Knight Commander of the Order of St. Michael and St. George, Member of the King's Privy Council for Canada, and Lieutenant-Governor of the Province of Ontario.*

MAY IT PLEASE YOUR HONOR:

I beg to submit herewith the Thirty-fifth Annual Report upon the Common Gaols, Prisons and Reformatories for the year ending on 30th September, 1902.

I have the honor to be,

Your Honor's most obedient servant,

J. R. STRATTON,
Provincial Secretary.

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THIRTY-FIFTH ANNUAL REPORT

UPON THE

GAOLS AND LOCK-UPS.

Considerable attention has been given by the County Councils to improving the condition of the gaols throughout the Province, during the past year, and a fair proportion of them are, in consequence, very well adapted for the safe-keeping and classification of prisoners. There are, however, still a number of gaols in some of the older counties which are not in so satisfactory a condition, although I have repeatedly called the attention of the authorities to the defects in the buildings. In some cases it is the absence of a proper water supply, in others the want of drainage, water-closets, improved heating arrangements, a separate residence for the gaoler and suitable apartments for the turnkey and matron.

As a rule the gaol officials have been attentive to their duties, and careful in the management of the prisoners.

I have again to regret the use of the county gaols for domiciling the insane and feeble-minded, the aged and infirm, the sick and poor, and trust that some action will soon be taken to prevent the continuance of this practice.

The lock-ups in the districts have been kept in good order, and some of them enlarged and much improved, the rapid increase in population demanding more accommodation. During the past year some four or five new lock-ups have been erected in the newer and more populous sections in New Ontario, the better to preserve order and carry on the administration of justice, where railway construction, mining and lumbering operations are being extended.

The prison records for the year are very favorable as compared with former years. The number of committals during the year was 8,280, being 266 less than in 1901; this is the lowest number, with the exception of two years, since 1873, the highest being 13,481 in 1877. Of the number of committals during the year 5,192 were punished by fine or imprisonment. Of the total number of committals 7,066 were men and 1,214 were women. On the 30th September last there were in the gaols of the Province 529 criminals, imbeciles, idiotic and insane, being a considerable decrease from former years. The number committed during the year, under

16 years of age, was 231; of these, 216 were boys and 15 were girls, being less than in former years. During the year 415 were committed for crimes against public morals and decency, which was 79 less than in 1901.

For drunkenness, 2,674 were committed, which is a slight increase over last year. This increase occured at Toronto and London, whereas there was a decrease in the commitments at Ottawa and Sudbury. There were 4,597 committals for crimes against public order and peace, as compared with 4,345 in 1901. The number sent to the Penitentiary was 112, while in 1901 128 were sent. There were sent to the Reformatory, 52; in 1901 there were 70. There were sent to the Central Prison 425; in 1901 there were 540; to the Female Reformatory, 82; and 94 in 1901. It will be seen by these figures that there has been quite a reduction in the number sent to the higher prisons during the past year. Of those committed 6,983 could read and write; and 1,297 could neither read nor write.

On the 30th September last there were in the gaols of the Province, classed as insane, idiotic and imbecile, 80; of these 28 were in Toronto goal, 9 in L'Orignal, 8 in Cobourg, and the balance were scattered over the Province. Of the total number (80) not more than ten per cent. were cases of insanity. There were 18 escapes during the year, as against 16 in 1901. The total number of cells in the gaols of the Province is 1,568, and the greatest number of prisoners in one day was 1,045. There was expended upon gaols during the past year $141,000, or about $3,000 more than the year previous. The cost per day per prisoner was 23 cents; the average cost of food per day per prisoner was about 6 1-2 cents.

The total number of days' stay in gaol of prisoners was 207,391. A great necessity exists for some form of reconstruction of prison labor, so far as the gaols are concerned, so that the prisoners may be made to contribute as far as possible towards their maintenance; at present little or nothing is derived from this source.

T. F. CHAMBERLAIN,
Inspector.

COMMON GAOLS.

The following table shews the number of prisoners committed to the Common Gaols in the Province in each year, from the 1st October, 1869, to the 30th September, 1902.

Date of commitment.	Men over 16 years of age.	Boys under 16 years of age.	Women over 16 years of age.	Girls under 16 years of age.	Total.
Commitments for the year ending 30th September, 1869....	3,599	294	1,680	82	5,655
" " 1870 ...	4,215	319	1,737	108	6,379
" " 1871....	4,586	329	1,642	58	6,615
" " 1872....	5,006	281	1,615	56	6,958
" " 1873 ..	5,745	323	1,735	74	7,877
" " 1874....	7,298	377	1,746	67	9,488
" " 1875...	8,048	389	1,566	70	10,073
" " 1876....	9,005	434	1,727	70	11,236
" " 1877....	11,053	542	1,824	62	13,481
" " 1878....	9,537	480	1,959	54	12,030
" " 1879....	8,995	416	1,756	53	11,220
" " 1880....	8,229	549	1,863	59	11,300
" " 1881....	7,007	468	1,681	73	9,229
" " 1882....	7,236	522	1,750	62	9,620
" " 1883....	7,858	423	1,551	48	9,880
" " 1884....	9,858	458	1,719	46	12,081
" " 1885...	9,419	450	1,507	50	11,426
" " 1886....	8,831	352	1,424	38	10,645
" " 1887....	8,996	409	1,574	38	11,017
" " 1888....	10,060	551	1,778	65	12,454
" " 1889 ..	10,349	451	1,685	46	12,531
" " 1890....	9,622	461	1,677	50	11,810
" " 1891....	8,469	421	1,501	32	10,423
" " 1892....	7,177	446	1,335	53	9,011
" " 1893....	6,798	388	1,399	34	8,619
" " 1894...	7,785	278	1,350	37	9,450
" " 1895....	7,912	284	1,154	30	9,380
" " 1896....	7,622	265	1,147	24	9,058
" " 1897 ..	7,533	235	1,069	47	8,884
" " 1898 ..	6,974	284	969	29	8,256
" " 1899....	6,846	267	1,057	33	8,203
" " 1900....	7,063	298	1,291	42	8,694
" " 1901....	7,059	262	1,198	27	8,546
" " 1902....	6,850	216	1,199	15	8,280

The next table shews the number of prisoners (male and female) committed to each gaol during 1901 and 1902, and the increase and decrease in the commitments of the latter year compared with the former.

Name of gaol.	Number of prisoners committed in the year ended Sept. 30th, 1901.			Number of prisoners committed in the year ended Sept. 30th, 1902.			Increase.			Decrease.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Barrie	91	11	102	87	11	98				4		4
Berlin	82	5	87	96	6	102	14	1	15			
Belleville	126	16	142	125	16	141				1		1
Brantford	181	20	201	195	13	208	14		14		7	7
Brampton	59	6	65	53	1	54				6	5	11
Brockville	119	17	136	145	13	158	26		26		4	4
Bracebridge	53	6	59	28	7	35		1	1	25		25
Cayuga	119	6	125	89	5	94				30	1	31
Cornwall	56	3	59	42	1	43				14	2	16
Cobourg	124	20	144	121	11	132				3	9	12
Chatham	124	24	148	104	14	118				20	10	30
Goderich	49	1	50	33	2	35		1	1	16		16
Guelph	58	5	63	73	9	82	15	4	19			
Hamilton	433	63	496	411	68	479		5	5	22		22
Kingston	87	10	97	79	7	86				8	3	11
London	371	22	393	487	59	546	116	37	153			
Lindsay	60	8	68	49	2	51				11	6	17
L'Orignal	17	5	22	29	3	32	12		12		2	2
Milton	90	8	98	105	4	109	15		15		4	4
Napanee	33	8	41	29	2	31				4	6	10
Ottawa	635	165	800	436	138	574				199	27	226
Owen Sound	115	7	122	83	15	98			8	32		32
Orangeville	43	6	49	32	3	35				11	3	14
Perth	98	19	117	93	17	110				5	2	7
Picton	41	1	42	36	2	38		1	1	5		5
Pembroke	30	2	32	42	4	46	12	2	14			
Peterboro'	145	15	160	113	19	132		4	4	32		32
Port Arthur	73	2	75	71	1	72				2	1	3
Parry Sound	48	6	54	51	1	52	3		3		5	5
Rat Portage	77	3	80	74	5	79		2	2	3		3
Simcoe	60	10	70	42	1	43				18	9	27
St. Catharines	69	7	76	63	10	73		3	3	6		6
Sarnia	180	8	188	176	7	183				4	1	5
Stratford	82	5	87	63	9	72		4	4	19		19
Sandwich	124	10	134	121	10	131				3		3
St. Thomas	66	9	75	45	2	47				21	7	28
Sault Ste. Marie	117	2	119	168	18	186	51	16	67			
Toronto	1,894	641	2,535	1,871	645	2,516		4	4	23		23
Walkerton	53	8	61	41	10	51		2	2	12		12
Woodstock	148	10	158	128	7	135				20	3	23
Welland	224	9	233	232	3	235	8		8		6	6
Whitby	51	6	57	52	1	53	1		1		5	5
Lock-ups:												
Gore Bay	6		6	13		13	7		7			
Little Current	37	1	38	32		32				5	1	6
Manitowaning	12		12	12		12						
Mattawa	10	1	11	3		3				7	1	8
Minden	9	1	10	9		9					1	1
Sudbury	324	7	331	295	16	311		9	9	29		29
Huntsville	22	2	24	19		19				3	2	5
Fort William	54	2	56	64	6	70	10	4	14			
Burk's Falls	13	1	14	17	2	19	4	1	5			
North Bay	41	2	43	50	1	51	9		9		1	1
Massey	23		23	19		19				4		4
Webwood	49		49	60	6	66	11	6	17			
Sturgeon Falls	9		9	8		8				1		1
Fort Frances				52	1	53	52	1	53			
Totals	7,314	1,232	8,546	7,066	1,214	8,280	380	116	496	628	134	762

The number of commitments, in five-year periods, for the past twenty-six years is shewn in the subjoined tables divided into five classes:

1. CRIMES AGAINST THE PERSON.

Nature of Crime.	1877 to 1881	1882 to 1886.	1887 to 1891.	1892 to 1896.	1897 to 1901.	1902.
Assault, common	3,093	2,907	2,452	1,912	1,766	286
Assault, felonious	530	716	884	626	686	145
Cutting and wounding, stabbing and shooting with intent	328	315	532	422	258	47
Rape and assault with intent	201	253	222	247	267	47
Murder	153	161	135	137	94	17
Manslaughter	47	59	81	36	42	8
Attempt at suicide	41	43	42	41	61	11
Miscellaneous	210	208	116	73	186	4
Total	4,603	4,662	4,464	3,494	3,360	565

2. CRIMES AGAINST PROPERTY.

Nature of Crime.	1877 to 1881.	1882 to 1886.	1887 to 1891.	1892 to 1896.	1897 to 1901.	1902.
Arson and incendiarism	184	172	183	211	200	19
Burglary	387	292	329	379	352	49
Counterfeiting and passing counterfeit money	82	36	62	50	38	4
Destroying and injuring property	576	544	423	344	345	75
Embezzlement	121	138	129	68	16	2
Forgery	223	211	211	165	193	26
Fraud and obtaining money or goods under false pretences	602	592	560	595	603	113
Horse, cattle and sheep stealing	383	335	353	361	308	64
Housebreaking and robbery	385	554	766	1,115	730	111
Larceny	8,546	7,406	7,762	7,433	7,542	1,382
Receiving stolen goods	208	197	190	170	190	27
Trespass	533	885	1,459	1,550	1,327	332
Miscellaneous	265	406	302	100	885	.....
Total	12,495	11,768	12,729	12,541	12,729	2,201

3. CRIMES AGAINST PUBLIC MORALS AND DECENCY.

Nature of Crime.	1877 to 1881.	1882 to 1886.	1887 to 1891.	1892 to 1896.	1897 to 1901.	1902.
Bigamy	46	49	68	70	70	17
Inmates and frequenters of houses of ill-fame	930	863	827	609	620	175
Keeping houses of ill-fame	534	529	475	400	397	96
Perjury	124	59	81	92	107	18
Seduction	6	3	67	102	146	17
Indecent assault and exposure	186	213	323	348	363	81
Miscellaneous	448	226	202	285	314	11
Total	2,274	1,942	2,043	1,906	2,017	415

4. OFFENCES AGAINST PUBLIC ORDER AND PEACE.

Nature of Crime.	1877 to 1881.	1882 to 1886.	1887 to 1891.	1892 to 1896	1897 to 1901.	1902.
Abusive and obscene language	406	312	280	268	205	43
Breaches of peace, breaches of by-laws, escapes from and obstructing constables	555	637	786	664	644	100
Carrying unlawful weapons	166	193	169	125	122	29
Deserting employment	103	86	21	25	53	56
Drunk and disorderly	18,521	19,293	21,545	11,806	10,217	2,674
Selling liquor without license, and selling or giving it to Indians	633	360	691	273	185	36
Threatening and seditious language	237	197	190	185	129	18
Vagrancy	12,738	9,831	10,482	10,154	9,707	1,347
Miscellaneous	989	912	1,126	1,211	563	294
Total	34,348	31,821	35,300	24,711	21,828	4,597

5. OTHER CAUSES FOR WHICH PERSONS WERE DETAINED AS PRISONERS

Nature of Crime.	1877 to 1881.	1882 to 1886.	1887 to 1891.	1892 to 1896.	1897 to 1901.	1902.
Contempt of Court	722	513	630	561	386	85
Debtors	331	283	374	169	101	5
Detained as witnesses	95	94	141	88	74	6
Lunatics and persons dangerous to be at large	1,666	2,113	2,273	1,888	1,953	383
Non-payment of fines and costs	80	.....	.....	.....	.....	.....
Want of sureties to keep the peace	646	456	281	160	138	23
Total	3,540	3,459	3,699	2,866	2,652	502
Total number of persons committed for the respective years	57,260	53,652	58,235	45,518	42,586	8,280

A table shewing the number of commitments to each gaol for drunkenness during the years 1900, 1901 and 1902 is annexed. The figures for 1901 and 1902

Name of gaol.	Commitments for drunkenness during the year ending 30th September, 1886.	Commitments for drunkenness during the year ending 30th September, 1886.	Commitments for drunkenness during the year ending 30th September, 1887.	Commitments for drunkenness during the year ending 30th September, 1888.	Commitments for drunkenness during the year ending 30th September, 1889.	Commitments for drunkenness during the year ending 30th September, 1890.	Commitments for drunkenness during the year ending 30th September, 1891.	Commitments for drunkenness during the year ending 30th September, 1892.
Barrie	31	35	16	28	46	34	34	19
Berlin	7	4	8	12	20	17	13	4
Belleville	45	34	51	67	39	49	34	18
Brantford	28	91	112	147	218	182	112	89
Brampton	24	8	10	24	28	30	17	10
Brockville	80	36	24	31	52	58	44	44
Bracebridge	67	7	7	3	25	15	19	5
Cayuga	18	15	17	24	25	15	22	5
Cornwall	3	1	4	7	29	25	14	22
Cobourg	26	15	6	12	28	38	22	25
Chatham	18	14	7	9	61	71	47	26
Goderich	3	4	.....	4	2	5	5	2
Guelph	32	12	22	21	10	10	4	14
Hamilton	368	385	373	429	401	418	251	142
Kingston	74	58	108	107	139	129	125	87
London	277	338	404	408	540	332	213	150
Lindsay	30	1	1	4	3	5	1	5
L'Orignal	3	1	.....	.....	2	.....	5	1
Milton	9	13	5	19	13	9	9	6
Napanee	6	3	8	7	4	22	23	12
Ottawa	205	280	286	297	276	336	204	182
Owen Sound	36	20	21	29	27	17	13	14
Orangeville	1	3	3	1	4	2	1	2
Perth	6	4	9	4	2	5	5	3
Picton	41	54	20	45	38	33	19	11
Pembroke	11	2	2	.....	4	1	.....	5
Peterborough	27	13	11	26	20	45	24	22
Port Arthur	66	30	28	16	18	12	4	3
Parry Sound	.....	.....	1	1	16	9	.....	2
Rat Portage	87	53	56	73	74	66	66	81
Simcoe	4	6	5	3	17	3	10	5
St. Catharines	29	21	21	28	33	24	12	9
Sarnia	130	72	38	64	99	108	95	27
Stratford	17	15	12	9	16	14	4	7
Sandwich	47	31	25	46	47	35	57	38
St. Thomas	57	30	25	29	23	20	32	12
Sault Ste. Marie	2	1	74	103	30	12	10	12
Toronto	1,707	1,705	2,166	2,098	2,096	2,085	1,783	1,444
Walkerton	.....	2	6	22	8	6	7	3
Woodstock	21	28	50	64	55	51	34	24
Welland	3	40	32	12	21	16	7	13
Whitby	4	.....	.....	.....	5	2	.....	1
Lock-ups :								
Gore Bay	.....	.....	4	3	1	4	1	2
Little Current	7	3	2	2	14	19	32	19
Manitowaning	3	13	5	11	18	33	33	22
Mattawa	6	13	5	5	8	7	3	9
Minden	.....	.....	.....	.....	1	2	.....	1
Sudbury	.....	2	8	27	45	55	77	5
Huntsville	17	1	.....	2	1	3	.....	2
Fort William	.....	36	64	59	43	47	50	51
Burk's Falls	.....	.....	.....	.....	3	1	.....	.....
North Bay	.....	.....	.....	.....	28	35	16	14
Massey	.....	.....	.....	.....	.....	.....	.....	.....
Webbwood	.....	.....	.....	.....	.....	.....	.....	.....
Sturgeon Falls	.....	.....	.....	.....	.....	.....	.....	.....
Fort Francis	.....	.....	.....	.....	.....	.....	.....	.....
Total	3,693	3,555	4,130	4,451	4,777	4,573	3,614	2,736

1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, are compared and the increase or decrease in each place are shewn.

Commitments for drunkenness during the year ending 30th September, 1893.	Commitments for drunkenness during the year ending 30th September, 1894.	Commitments for drunkenness during the year ending 30th September, 1895.	Commitments for drunkenness during the year ending 30th September, 1896.	Commitments for drunkenness during the year ending 30th September, 1897.	Commitments for drunkenness during the year ending 30th September, 1898.	Commitments for drunkenness during the year ending 30th September, 1899.	Commitments for drunkenness during the year ending 30th September, 1900.	Commitments for drunkenness during the year ending 30th September, 1901.	Commitments for drunkenness during the year ending 30th September, 1902.	Increase or decrease during the year ending 30th September, 1902.	
										Increase.	Decrease.
10	21	9	24	21	11	10	16	12	21	9	.....
6	7	7	10	12	10	7	4	4	11	7	.....
24	25	19	16	12	13	16	12	11	20	9	.....
120	125	124	106	115	85	64	88	74	82	8	.....
9	9	11	6	2	3	4	4	4	5	1	.....
77	86	70	43	48	49	45	41	58	66	8	.....
5	5	4	4	3	2	3	.....	5	5	.....	.....
.....	5	6	6	9	10	13	10	19	12	.....	7
27	10	24	9	11	28	21	19	12	15	3	.....
11	19	18	16	12	15	20	10	16	14	.....	2
28	22	17	9	13	13	15	18	18	11	.....	7
3	3	.....	.....	2	1	2	5	5	1	.....	4
9	23	17	7	9	9	3	13	4	13	9	.....
148	55	36	60	56	60	66	96	108	97	.....	11
102	72	89	49	51	50	48	31	47	40	.....	7
218	219	187	177	139	163	172	137	137	250	113	.....
2	5	2	5	4	5	6	7	8	8	.....	.....
2	1	3	2	2	.....	2	2	.....	3	3	.....
4	8	3	8	3	4	2	4	4	4	.....	.....
9	20	8	6	5	13	4	7	4	7	3	.....
105	111	157	152	165	137	135	224	293	227	.....	66
11	6	.....	8	6	11	7	8	12	16	4	.....
.....	.....	.....	.....	.....	1	.....	3	.....	.....	.....	.....
2	3	6	3	3	7	9	7	12	17	5	.....
11	21	11	22	31	23	30	35	19	21	2	.....
7	4	7	3	5	5	.....	1	4	1	.....	3
16	15	13	10	11	11	10	6	13	9	.....	4
4	1	3	5	12	4	2	9	8	7	.....	1
4	5	7	2	3	3	5	8	4	5	1	.....
75	65	31	76	96	111	110	23	34	36	2	.....
3	11	17	6	6	16	10	11	6	12	6	.....
21	17	26	23	5	17	10	15	33	21	.....	12
36	69	116	57	62	49	61	48	45	70	25	.....
9	15	7	10	15	5	1	9	12	8	.....	4
21	29	39	16	23	20	16	27	18	31	13	.....
15	19	22	13	12	9	17	23	9	6	.....	3
8	5	2	12	9	8	7	7	21	16	.....	5
1,207	960	918	790	569	592	796	1,031	1,022	1,107	85	.....
13	8	21	5	3	1	4	4	...	1	1	.....
38	21	29	37	35	32	31	21	39	36	.....	3
12	11	19	17	16	14	19	20	24	23	.....	1
2	1	2	.....	1	4	5	2	3	5	2	.....
1	2	3	.....	.....	.....	.....	.....	.....	1	1	.....
9	12	9	2	6	5	4	13	38	31	.....	7
16	5	16	4	3	4	5	7	10	12	2	.....
22	40	32	.....	3	.....	.....	.....	.....	.....	.....	.....
1	4	1	.....	4	.....	1	1	3	5	2	.....
119	38	42	25	41	34	54	197	222	172	.....	50
5	.....	4	4	6	3	4	10	11	6	.....	5
30	30	10	24	30	20	11	49	15	25	10	.....
.....	.....	2	1	.....	1	.....	.....	4	1	.....	3
15	7	10	5	.....	4	.....	3	12	5	.....	7
.....	3	.....	3	.....	6	2	10	7	1	.....	6
.....	.....	.....	9	7	6	2	9	17	18	1	.....
.....	.....	.....	.....	.....	.....	1	12	2	4	2	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	33	33	.....
2,652	2,274	2,237	1,907	1,716	1,707	1,892	2,377	2,522	2,674	370	218

The disposition made of the persons committed to the gaols of the Province is set forth in the table printed below :

Acquitted on being brought to trial and discharged	1,719
Discharged without trial by order of judges, magistrates and courts, including remand cases	565
Detained for want of securities to keep the peace	22
Detained as witnesses	6
Detained as fraudulent debtors	11
Detained as lunatics, idiots and persons unsafe to be at large	367
Died before trial	5
Detained by civil processes, other than above	18
Waiting trial and otherwise detained on 30th September, 1902	78
Found guilty and sentenced	5,193
Discharged under suspended sentence	297
Total number of commitments	8,280

The places of confinement to which the convicted persons were sentenced are set forth in the following statement, and similar information is given as regards the sentenced prisoners of the previous year:

	1901.	1902.
Sentenced to Kingston Penitentiary	128	112
do to the Reformatory for Boys	70	52
do direct to Central Prison	540	425
do to the Common Gaols and subsequently transferred to the Central Prison	127	266
do direct to Reformatory for Females	94	82
do to Common Gaols and subsequently transferred to the Reformatory for Females	50	40
do to the Common Gaols and there detained until the expiration of sentence	4,285	4,191
Died while undergoing sentence	41	24
Total	5,335	5,192

The summaries given below show the nature of the offence committed by the convicted persons :

1. *Crimes against the Person.*

	Total commitments for the year.	Number found guilty and sentenced.
Assault, common	286	168
Assault, felonious	145	78
Cutting and wounding, stabbing and shooting with intent	47	23
Rape, and assault with intent	47	15
Murder	17	2
Manslaughter	8	2
Attempted suicide	11	3
Miscellaneous	4	....
Total	565	291

2. *Crimes against Property.*

	Total commitments for the year.	Number found guilty and sentenced.
Arson and incendiarism	19	14
Burglary	49	24
Counterfeiting and passing counterfeit money	4	4
Destroying and injuring property	75	59
Embezzlement	2	....
Forgery	26	11
Fraud and obtaining money and goods under false pretences	113	57
Horse, cattle and sheep stealing	64	30
Housebreaking and robbery	111	66
Larceny	1,382	817
Receiving stolen goods	27	10
Trespass	332	297
Miscellaneous	....	...
Total	2,201	1,389

3. *Crimes against Public Morals and Decency.*

Bigamy	17	7
Inmates and freqnenters of houses of ill-fame	175	90
Keeping houses of ill-fame	96	62
Perjury	18	5
Seduction	17	6
Indecent assault and exposure	81	47
Miscellaneous	11	11
Total	415	228

4. *Offences against Public Order and Peace.*

Abusive and obscene language	43	33
Breaches of peace, breaches of by-laws, escapes from and obstructing constables	100	66
Carrying unlawful weapons	29	17
Deserting employment, etc,	56	56
Drunk and disorderly	2,674	1,897
Selling liquor without a license and selling or giving it to Indians	36	26
Threatening and seditious language	18	10
Vagrancy	1,347	967
Miscellaneous	388	137
Total	4,631	3,209
Contempt of court, lunatics, etc	468	75
Total	8,280	5,192

The following tables show the period of sentence passed on the convicted prisoners and the sex, social conditions, habits, etc., of the total number of prisoners committed.

	1901.	1902.
Periods of Sentence.		
For periods under thirty days	1,564	1,534
For thirty days and up to sixty days, or two months, not including the last term	1,751	1,805
For sixty days, or two months	446	463
Over two months to three months	362	308
Over three months to four months	175	134
Over four months to five months	87	76
Over five months to six months	517	474
Over six months to nine months	60	69
Over nine months up to one year, inclusive	92	69
Over one year and up to two years	86	85
Over two years and up to three years in the Penitentiary	55	61
Over three years in the Penitentiary	69	56
For periods of any length in the Reformatory for Boys	68	52
Sentenced to death and executed	..	2
Sentenced to death and commuted to imprisonment	..	..
Sentenced to imprisonment with corporal punishment	3	4
	5,335	5,192
Sex.		
Male	7,314	7,066
Female	1,232	1,214
	8,546	8,280
Social Condition.		
Married	3,225	3,066
Unmarried	5,321	5,214
	8,546	8,280
Habits.		
Temperate	2,875	2,656
Intemperate	5,671	5,624
	8,546	8,280
Educational Status.		
Could read and write	7,158	6,983
Could neither read nor write	1,388	1,297
	8,546	8,280

The number of prisoners confined in the various custodial institutions of the Province at the close of the past official year, and of the year preceding, is exhibited in the following summary :

	1901.	1902
In the Common Gaols	600	529
In the Central Prison, Toronto	340	363
In the Reformatory for Boys, Penetanguishene	141	115
In the Reformatory for Females and Refuge for Girls, Toronto	135	141
In the Dominion Penitentiary, Kingston	509	456
	1,725	1,541

GAOL EXPENDITURES.

The usual table is appended, showing the cost of maintaining the Common Gaols during the past twenty-five years, under the headings of rations, clothing, fuel, salaries and wages and repairs :

Year.	Total number of prisoners in custody each year.	Cost of rations, clothing, fuel, etc., each year.	Cost of salaries and wages of gaol officials each year.	Cost of repairs.	Total gaol expenditure.
		$ c.	$ c.	$ c.	$ c.
1878	12,030	60,217 83	63,591 11	7,307 06	131,116 60
1879	11,229	58,856 24	63,914 40	5,583 44	122,355 08
1880	11,300	49,037 14	64,084 34	3,504 96	116 626 44
1881	9,229	45,001 05	63,502 00	3,410 12	111,915 15
1882	9,620	44,768 92	63,794 30	4,665 53	113,228 75
1883	9,880	44,783 50	64,935 96	4,706 20	114,425 66
1884	12,081	61,909 89	68,446 88	7,125 50	127,482 27
1885	11,426	54,321 35	70,344 96	5,081 55	129,747 86
1886	10,645	53,300 43	71,690 76	8,753 07	133,744 26
1887	11,017	48,650 27	71,291 58	6,146 71	126,088 56
1888	12,454	53,961 25	73,633 11	6,509 13	134,143 49
1889	12,531	55,002 89	77,677 84	3,313 20	135,983 93
1890	11,810	51,446 99	79,394 49	9,171 01	140.012 49
1891	10,423	58,110 73	79,741 59	12,183 02	150,035 34
1892	9,011	51,505 57	75,564 83	4,635 65	135,706 05
1893	8,619	49,762 40	79,639 81	8,083 50	137,485 71
1894	9,450	45,115 58	79,790 80	6,728 04	131,634 42
1885	9,380	50,591 40	79,677 17	6,304 58	136,573 15
1896	9,058	49,107 73	79,940 04	6,778 50	135,826 27
1897	8,884	51,066 56	80,863 60	10,248 93	142,179 09
1898	8,256	50,412 91	80,915 05	5,982 56	137,310 52
1899	8,203	50,362 88	82,047 97	4,206 66	136 617 51
1900	8,694	50 353 75	82,144 05	4,944 21	137,442 01
1901	8,546	48 977 86	83,305 15	6,065 44	137,348 45
1902	8,280	49,125 35	85,350 04	6,515 40	140,990 79

A summary is given below showing the days' stay respectively of those prisoners whose maintenance was chargeable to the Province, and of those who were a charge on the municipalities:

		Days' stay.
2,583	Criminal prisoners remained in gaol	60,519
5,697	Municipal " " "	146,872
8,280	Prisoners in all " "	207,391

STATISTICAL TABLES.

Following this portion of the report will be found the tables named in the list given hereunder.

Table No. 2, showing the total number of prisoners in the several gaols on the 30th September, 1902, and the nature of their imprisonment.

Table No. 3, showing the number of prisoners over and under 16 years of age, the number of recommittals, the number of persons acquitted on being brought to trial, and the number of persons committed under civil processes.

Table No. 4, showing the offences for which prisoners were sentenced.

Table No. 5, showing the number of prisoners, male and female, sentenced under each offence during the year.

Table No. 6, showing the social status and habits of the prisoners committed during the year.

Table No. 7, showing the number of prisoners upon whom sentence was passed, the nature of the sentences, and the operation of the County Judge's Criminal Courts.

Table No. 8, showing how the prisoners committed during the year were maintained, the cost thereof, and the salaries of officials.

Table No. 9, showing the number of escapes and deaths, the revenue derived from prison labor, the cost of diet, accommodation of the gaols and the highest and lowest number of prisoners in custody in each gaol during the year.

Table No. 10, showing the daily cost per prisoner in each of the gaols of the Province for the year ending 30th September, 1902.

Table No. 11, showing the number of prisoners, male and female, sentenced during the year ending 30th September, 1902, and a comparison of the same with the previous year.

TABLE No. 2.

Shewing the total number of prisoners who were in the several gaols of the Province on the evening of the 30th September, 1902, and the nature of their imprisonment.

Name of gaol.	Classification.				Nature of imprisonment.						Total number of persons who remained in custody 30th September, 1902.
	Men.	Women.	Boys under 16 years.	Girls under 16 years.	Waiting trial.	Under sentence for periods of 2 months and under.	Under sentence for periods over 2 months	In default of securities to keep the peace.	Insane, idiotic or imbecile persons.	Otherwise detained.	
Barrie	6	2				2	5		1		8
Berlin	6				1	2	3				6
Belleville	7		1		1	2	5				8
Brantford	3	3			1	3	1		1		6
Brampton	2						2				2
Brockville	6				1	3	2				6
Bracebridge											
Cayuga	4						3			1	4
Cornwall	2	1			2		1				3
Cobourg	36	8				2	34		8		44
Chatham			1		1						1
Goderich	6						3		3		6
Guelph	7				6	1					7
Hamilton	17	2			3	6	9		1		19
Kingston	11	1			1		11				12
London	23	2			11	12	2				25
Lindsay	3	2				1	2		2		5
L'Orignal	11	2			1	1	2		9		13
Milton	2	1			1	2					3
Napanee	2	1				1	1		1		3
Ottawa	17	7			5	6	11		2		24
Owen Sound	4	3	1		1		3		3	1	8
Orangeville	9						9				9
Perth	12	4				3	12		1		16
Picton											
Pembroke	3	2	1				6				6
Peterboro'	11	2			3		8		2		13
Port Arthur	2						2				2
Parry Sound	4				1	1	2				4
Rat Portage	3					2	1				3
Simcoe											
St. Catharines	2						2				2
Sarnia	15	1			2	8	2		4		16
Stratford	6				1	2			3		6
Sandwich	12				1	2	5		4		12
St. Thomas	4				1	1			2		4
Sault Ste. Marie	13	1			2	6	5		1		14
Toronto	97	57	1		22	96	9		28		155
Walkerton	6				1		2		3		6
Woodstock	6				1	2	3				6
Welland	8					4	4				8
Whitby	8				2	3	4				8
Lock-Ups:											
Gore Bay											
Little Current											
Manitowaning											
Mattawa											
Minden											
Sudbury	4				2	2					4
Huntsville			2				2				2
Fort William	8	1				3	6				9
Burk's Falls	3					3					3
North Bay	1	1			1				1		2
Massey											
Webwood	5				5						5
Sturgeon Falls											
Fort Francis	1					1					1
Totals	418	104	7		80	183	184		80	2	529

TABLE

Shewing the number of persons *committed*, the number over and under sixteen years number of unsound mind, number acquitted on trial, number and number *committed*

Name of gaol.	Total number committed during the year.			Number under 16 years of age.			Number over 16 years of age.			For the first time.	For the second time	For the third time.
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.			
Barrie	87	11	98	1		1	86	11	97	88	10	
Berlin	96	6	102	5	1	6	91	5	96	69	15	6
Belleville	125	16	141	14	1	15	111	15	126	134	6	1
Brantford	195	13	208	14		14	181	13	194	109	29	13
Brampton	53	1	54	2		2	51	1	52	38	11	3
Brockville	145	13	158	8		8	137	13	150	74	36	12
Bracebridge	28	7	35		1	1	28	6	34	35		
Cayuga	89	5	94				89	5	94	23	16	15
Cornwall	42	1	43	1		1	41	1	42	26	9	3
Cobourg	121	11	132	2		2	119	11	130	36	28	16
Chatham	104	14	118	2	1	3	102	13	115	111	6	1
Goderich	33	2	35				33	2	35	22	7	1
Guelph	73	9	82	1	1	2	72	8	80	56	10	5
Hamilton	411	68	479	22	2	24	389	66	455	206	51	45
Kingston	79	7	86	3		3	76	7	83	80	6	
London	487	59	546	14		14	473	59	532	278	83	47
Lindsay	49	2	51				49	2	51	50	1	
L'Orignal	29	3	32	1		1	28	3	31	31		1
Milton	105	4	109	1		1	104	4	108	94	10	2
Napanee	29	2	31	1		1	28	2	30	24	5	
Ottawa	436	138	574	10	2	12	426	136	562	499	51	20
Owen Sound	83	15	98	2	1	3	81	14	95	54	8	11
Orangeville	32	3	35	3		3	29	3	32	13	20	2
Perth	93	17	110	1		1	92	17	109	94	15	1
Picton	36	2	38	1		1	35	2	37	21	4	3
Pembroke	42	4	46	3		3	39	4	43	26	4	3
Peterboro'	113	19	132	12	1	13	101	18	119	82	27	8
Port Arthur	71	1	72	1		1	70	1	71	65	6	1
Parry Sound	51	1	52				51	1	52	48	2	2
Rat Portage	74	5	79	1		1	73	5	78	50	14	4
Simcoe	42	1	43	2		2	40	1	41	19	11	7
St Catharines	63	10	73	3		3	60	10	70	45	16	4
Sarnia	176	7	183	4		4	172	7	179	122	10	14
Stratford	63	9	72	6		6	57	9	66	57	12	3
Sandwich	121	10	131	6		6	115	10	125	88	12	11
St. Thomas	45	2	47	6		6	39	2	41	25	10	5
Sault Ste. Marie	168	18	186	5	1	6	163	17	180	168	14	3
Toronto	1,871	645	2,516	41	2	43	1,830	643	2,473	1,343	502	228
Walkerton	41	10	51	2		2	39	10	49	37	4	3
Woodstock	128	7	135	7	1	8	121	6	127	63	22	12
Welland	232	3	235				232	3	235	145	25	13
Whitby	52	1	53	5		5	47	1	48	25	9	6
Lock-Ups :												
Gore Bay	13		13				13		13	12	1	
Little Current	32		32				32		32	29	2	1
Manitowaning	12		12				12		12	12		
Mattawa	3		3				3		3	3		
Minden	9		9				9		9	9		
Sudbury	295	16	311				295	16	311	311		
Huntsville	19		19	2		2	17		17	19		
Fort William	64	6	70				64	6	70	64	6	
Burk's Falls	17	2	19				17	2	19	17	1	
North Bay	50	1	51				50	1	51	49	1	1
Massey	19		19				19		19	19		
Webbwood	60	6	66				60	6	66	61	4	1
Sturgeon Falls	8		8				8		8	8		
Fort Francis	52	1	53	1		1	51	1	52	50	1	1
Totals	7,066	1,214	8,280	216	15	231	6,850	1,199	8,049	5,336	1,153	539

No. 3.

of age, the number of recommittals, the number for want of securities to keep the peace, discharged without trial, number waiting trial, number sentenced under civil process.

For more than the third time	For want of sureties to keep the peace.	Witnesses.	Lunatics and idiots.	Fraudulent debtors.	Under civil process.	Acquitted on trial and discharged.	Discharged without trial.	Discharged under suspended sentence.	Died before trial.	Waiting trial.	Sentenced for any period.	Name of gaol.
....	1	2	7	...	.....	13	...	5	.....	...	70	Barrie.
12	.....	..	6	...	.....	6	31	6	..	1	52	Berlin.
...	2	.....	16	1	.....	28	..	7	...	1	86	Belleville.
57	....	.....	5	...	1	85	1	5	.....	1	110	Brantford.
2	.....	.....	2	.....	.....	2	19	1	.....	....	30	Brampton.
36	.....	..	3	.....	....	31	1	20	.....	1	102	Brockville.
....	.....	.....	4	.....	..	1	1	4	.....	.....	25	Bracebridge.
40	....	.....	3	1	.....	5	1	3	1	.....	80	Cayuga.
5	.....	2	3	1	.....	1	3	1	.....	2	30	Cornwall.
52	.....	.....	5	.....	1	4	2	6	.....	..	114	Cobourg.
...	.....	1	2	....	....	39	2	6	.....	1	67	Chatham
5	.....	.....	10	...	.....	6	2	4	.....	....	13	Goderich.
11	....	....	3	.....	.....	...	23	18	.....	7	31	Guelph.
177	11	.....	10	...	...	8	134	8	1	3	304	Hamilton.
.....	.....	.....	4	3	.....	2	5	5	.....	....	67	Kingston.
138	....	.....	19	...	.....	276	45	14	...	11	201	London.
..	.....	....	7	.....	4	6	4	5	.....	.....	25	Lindsay.
.....	.....	.....	11	...	1	3	.....	4	.....	3	10	L'Orignal.
3	1	....	2	.....	.....	...	76	.....	1	.....	29	Milton.
2	..	..	1	.....	.....	.....	3	2	...	.....	25	Napanee.
4	....	...	36	...	.....	203	.....	3	....	3	329	Ottawa.
25	....	.....	10	...	.....	23	....	..	....	1	64	Owen Sound.
.....	.....	.....	1	.....	.....	...	1	....	....	....	33	Orangeville.
....	..	..	7	.....	.....	6	1	7	....	..	86	Perth.
10	...	.....	2	.....	.....	29	.....	3	.....	...	4	Picton.
13	..	....	.....	.....	.....	4	1	1	....	.....	40	Pembroke.
15	..	.....	11	.....	.....	39	25	4	...	3	50	Peterboro'.
.....	....	....	7	.....	.....	.....	3	1	....	.....	60	Port Arthur.
..	..	.....	3	..	....	15	1	3	.....	3	27	Parry Sound.
11	....	.....	5	.....	.....	1	9	7	.....	....	57	Rat Portage.
6	....	.....	2	.....	.....	3	22	1	.....	..	15	Simcoe.
8	....	.....	5	.....	.....	4	14	5	.....	..	45	St. Catharines.
37	1	.....	11	1	.....	38	.....	8	1	2	121	Sarnia.
....	..	.....	13	.....	.....	.....	29	.....	....	1	29	Stratford.
20	....	.....	14	.....	..	13	24	7	.....	1	72	Sandwich.
7	2	...	6	1	.....	8	2	4	.....	1	23	St. Thomas.
1	..	.....	8	.....	.....	55	..	9	....	1	113	Sault. Ste Marie.
443	3	.....	66	.....	.....	714	13	81	1	22	1,616	Toronto.
7	....	.....	10	..	.....	4	3	3	.....	1	30	Walkerton.
38	....	..	6	.....	.....	4	41	3	....	.....	81	Woodstock.
52	.....	1	3	2	.....	...	17	1	.....	.....	211	Welland.
13	.....	.....	4	.....	1	3	.....	5	.....	1	39	Whitby.
												Lock-Ups:
.....	.....	.....	....	.....	....	2	.....	.....	.....	.....	11	Gore Bay.
.....	.....	.....	..	.....	....	...	....	.....	.....	.....	32	Little Current.
...	...	...	.	.....	....	....	....	.....	.....	.....	12	Manitowaning.
....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	Mattawa.
.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	7	Minden.
.....	.....	.....	6	1	10	.....	.....	10	.....	.....	284	Sudbury.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Huntsville.
.....	.....	.....	.....	.....	.....	8	.....	6	.....	.....	56	Fort William.
1	.....	.....	2	.....	.....	2	.....	.....	.....	.....	15	Burk's Falls.
.....	.....	.....	4	.....	.....	5	.....	.....	.....	1	41	North Bay.
..	.....	.....	.....	.....	.....	...	1	....	.....	.....	18	Massey.
.....	.....	.....	...	.....	.....	12	.....	.....	.....	5	49	Webbwood.
....	....	.....	.....	.....	.....	.....	2	.....	.....	.....	6	Sturgeon Falls.
1	1	.....	1	.....	.....	8	....	....	.....	.....	43	Fort Francis.
1,252	22	6	367	11	18	1,719	565	297	5	78	5,192	

TABLE

Shewing the offences for which prisoners were sentenced

Name of Gaol.	Abortion.	Abusive and obscene language.	Arson.	Assault.	Assault, felonious.	Attempted suicide.	Abduction.	Bigamy.	Breaches of the peace.	Breaches of by-laws.
Barrie				2	2					
Berlin			1	2		1			1	
Belleville		2		5	1					1
Brantford										
Brampton				1	1			1		
Brockville		1	1	1	2					
Bracebridge				3						
Cayuga				2	1					
Cornwall				1						
Cobourg		1		1						
Chatham		2		7	3				1	2
Goderich										
Guelph				2						
Hamilton				14						1
Kingston				3						
London		2		3	8					
Lindsay		1								1
L'Orignal										
Milton				2					1	
Napanee										1
Ottawa		4		21					16	1
Owen Sound				1	4					
Orangeville										
Perth		1			1					
Picton				1						
Pembroke										
Peterboro'			1	1						
Port Arthur					4					
Parry Sound				2	1					
Rat Portage				6						
Simcoe				1						
St. Catharines		2		2				1		
Sarnia						1				
Stratford		1		1	3					1
Sandwich		2		4	4					
St. Thomas				2						
Sault Ste. Marie				5	9		1			
Toronto		2		29	33	1		2	8	11
Walkerton		2		5						
Woodstock		3		2	1					
Welland				2				1		
Whitby		1	2	2						
Lock-ups:										
Gore Bay				2						
Little Current										
Manitowaning										
Mattawa										
Minden				1						
Sudbury				13				2		
Huntsville										
Fort William				8						
Burk's Falls			3							
North Bay				1						
Massey										
Waubaushene				3						
Sturgeon Falls				1						
Fort Francis		6	5							
Total		33	13	168	78	3	1	7	27	19

No. 4.

during the year ended 30th September, 1902.

Burglary.	Contempt of Court.	Carrying unlawful weapons.	Counterfeiting and passing counterfeit money.	Cruelty to animals.	Cutting, wounding and attempting same.	Deserting employment.	Destroying and injuring property.	Drunk and disorderly.	Embezzlement.	Escaping from and obstructing constable.	Escaping from prison.	Name of Gaol.
2	2					1	2	16				Barrie.
	1			1				4				Berlin.
1		1						17				Belleville.
							2	46			1	Brantford.
		2						3				Brampton.
					1		4	50		1		Brockville.
	3							5				Bracebridge.
	1							9				Cayuga.
	1							14				Cornwall.
	1	2		2				14				Cobourg.
3	4		1					8				Chatham.
												Goderich.
	1							9				Guelph.
1	2				1		6	89		8	1	Hamilton.
	3					3		38			1	Kingston.
	10	1	1			1	2	83				London.
	4							5				Lindsay.
								2				L'Orignal.
								2		1		Milton.
	2	1						7				Napanee.
	19				2		6	123		2		Ottawa.
	2							7				Owen Sound.
												Orangeville.
	2							17				Perth.
												Picton.
						3		1				Pembroke.
1	1						1	2				Peterboro'.
	1						4	7				Port Arthur.
3	1			1				5				Parry Sound.
		1						34				Rat Portage.
								7			1	Simcoe.
								18		1		St. Catharines
2	3							60				Sarnia.
								6				Stratford.
1	1	3						29				Sandwich.
	1							3			1	St. Thomas.
						7		14				Sault Ste. Marie.
2	3	2		2	4	1	7	809		7	1	Toronto.
	2							1				Walkerton.
								27				Woodstock.
5	2	1						21				Welland.
	1							4				Whitby.
												Lock-ups :
								1				Gore Bay.
								31				Little Current.
								12				Manitowaning.
												Mattawa.
								5				Minden.
						21	22	161				Sudbury.
												Huntsville.
			2					17				Fort William.
						3		1				Burk's Falls.
1	1	1						5				North Bay.
						11	2	1				Massey.
		1			2	5	1	16				Webbwood.
2								3				Sturgeon Falls.
		1						28				Fort Francis.
24	75	17	4	6	10	56	59	1,897		20	6	

TABLE

Shewing the offences for which prisoners were sentenced

Name of Gaol.	Forgery.	Fraud or obtaining money under false pretences.	Gambling.	Giving liquor to Indians.	Horse, cattle and sheep stealing.	Housebreaking and robbery.	Incendiarism.	Indecent assault and exposure.	Inmates and frequenters of house of ill-fame.	Keeping house of ill-fame.	Larceny.	Manslaughter	Misdemeanour.	Murder.
Barrie	1	1		1	3	3					18			
Berlin	1	1		1		1					10			
Belleville		3			1			3		1	24			
Brantford						2		2			22			
Brampton		1									3			
Brockville		1			1	3		2		1	12			
Bracebridge		1				2			2	2	5			
Cayuga						2					10			
Cornwall											6			
Cobourg					4						32			
Chatham		7		2	2	3		1	2	1	9			
Goderich					1						1			
Guelph	1					4				1	8			
Hamilton	1	3			2	11		3		3	70			
Kingston					3						13			
London		9			2			1		1	28			
Lindsay											4			
L'Orignal					1	1					6			
Milton								1			4			
Napanee					1						4			
Ottawa	2	2			1	7		3	13	20	39			
Owen Sound		4				1		2	2	1	6			
Orangeville														
Perth									2		7			
Picton											3			
Pembroke		2						2			11			
Peterboro'								2		1	8			
Port Arthur						2					8			
Parry Sound								1			7			
Rat Portage				1						2	10			
Simcoe					1						4			
St. Catharines					1			2			10			
Sarnia											8			
Stratford		1				2	1	1			4			
Sandwich		1			3	2					11			
St. Thomas					2	1					7			
Sault Ste. Marie	2	2							9	2	21			1
Toronto		9	1		1	14		16	35	21	275	2		1
Walkerton				2				1			2			
Woodstock	1	1									7			
Welland		1				2		1			16			
Whitby		1									8			
Lock-ups:														
Gore Bay				1							1			
Little Current														
Manitowaning														
Mattawa											1			
Minden											1			
Sudbury		2						1	15	2	19			
Huntsville														
Fort William				2		3		1	5		8			
Burk's Falls											1			
North Bay		1			1			1			18			
Massey											2			
Webbwood	2	3							5	3	4			
Sturgeon Falls														
Fort Francis				1							1			
Total	11	57	1	11	30	66	1	47	90	62	817	2		2

No. 4.—*Concluded.*

during the year ended 30th September, 1902.

Perjury.	Prostitution.	Rape and assault with intent.	Refusing bail.	Receiving stolen goods.	Seduction.	Selling liquor without a license.	Shooting with intent.	Stabbing.	Threatening and seditious language.	Unlawful shooting.	Trespass.	Vagrancy.	Other offences not enumerated.	Totals.	Name of Gaol.
....	....	....	....	1	..	2	1	....	1	..	1	10	....	70	Barrie.
....	....	....	....	....	....	....	....	1	....	....	3	21	2	52	Berlin.
....	3	..	....	....	....	....	....	....	....	....	....	20	3	86	Belleville.
....	....	1	....	....	....	....	2	....	....	....	3	29	..	110	Brantford.
....	....	....	....	....	....	....	....	....	....	....	1	14	3	30	Brampton.
....	4	....	....	....	....	....	....	....	....	....	4	11	2	102	Brockville.
....	....	....	....	....	....	....	....	....	....	....	....	2	.....	25	Bracebridge.
....	....	....	....	....	1	....	....	....	....	....	....	52	2	80	Cayuga.
....	....	....	....	....	....	....	....	....	....	....	..	8	.....	30	Cornwall.
....	1	....	....	....	....	....	....	....	....	....	....	54	2	114	Cobourg.
....	....	2	....	....	....	....	....	....	....	....	1	3	3	67	Chatham.
....	....	....	....	....	....	....	....	....	....	....	....	11	....	13	Goderich.
....	....	....	....	2	....	1	....	....	....	....	....	2	....	31	Guelph.
....	....	....	....	1	....	....	....	....	2	....	23	44	18	304	Hamilton.
....	....	....	....	....	....	....	....	....	....	....	....	3	1	67	Kingston.
....	....	....	....	....	1	....	1	....	....	....	3	22	22	201	London.
....	....	1	....	....	....	1	1	....	....	....	....	7	....	25	Lindsay.
....	....	....	....	....	....	....	....	....	....	....	....	....	....	10	L'Original.
....	....	....	....	....	....	....	....	....	1	....	3	11	3	29	Milton.
....	1	....	....	....	1	....	....	....	....	....	1	5	1	25	Napanée.
....	....	....	....	....	....	2	....	2	4	....	6	19	15	329	Ottawa.
....	....	1	....	....	....	....	....	....	....	....	....	29	4	64	Owen Sound.
....	....	....	....	....	....	....	....	....	....	....	....	33	....	33	Orangeville.
....	....	....	....	....	....	....	....	....	....	....	....	56	.....	86	Perth.
....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	Picton.
....	....	....	....	1	2	....	....	....	....	....	....	16	2	40	Pembroke.
1	....	....	....	....	....	....	....	....	....	....	....	29	2	50	Peterboro'
....	....	....	....	....	....	....	....	1	....	....	11	22	....	60	Port Arthur.
....	....	....	....	....	....	1	1	1	....	....	....	2	1	27	Parry Sound.
....	....	....	....	....	....	1	....	....	....	....	1	1	.....	57	Rat Portage.
....	....	....	....	....	....	....	....	....	....	....	....	....	1	15	Simcoe.
1	....	1	....	1	....	....	....	....	....	....	2	3	....	45	St. Catherines.
....	....	....	....	....	....	....	....	....	....	....	28	12	7	121	Sarnia.
....	....	....	....	....	....	....	....	....	....	....	....	8	....	29	Stratford.
....	....	....	....	....	....	....	....	....	....	....	3	6	2	72	Sandwich.
....	....	....	....	....	....	....	....	....	....	....	2	4	...	23	St. Thomas.
....	....	....	....	....	....	3	1	....	....	....	....	35	1	113	Sault Ste. Marie.
....	....	7	....	4	....	1	1	....	....	....	150	150	4	1,616	Toronto.
....	....	....	....	....	....	....	....	....	....	....	....	15	...	30	Walkerton.
....	....	....	....	....	....	....	....	....	....	....	1	36	2	81	Woodstock.
....	....	....	....	....	....	....	....	....	....	....	42	116	1	211	Welland.
....	....	....	....	....	....	....	....	....	....	....	....	15	5	39	Whitby.
															Lock-ups :
3	....	2	....	....	....	....	....	....	....	....	....	1	....	11	Gore Bay.
....	....	....	....	....	....	....	....	....	....	....	....	....	1	32	Little Current.
....	....	....	....	....	....	....	....	....	....	....	....	....	....	12	Manitowaning.
....	....	....	....	....	....	....	....	....	....	....	....	1	.....	2	Mattawa.
....	..	....	....	....	....	....	....	....	....	....	....	....	....	7	Minden
....	2	....	....	....	....	....	....	....	....	....	6	10	8	284	Sudbury.
....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	Huntsville.
....	....	....	....	....	....	....	....	....	2	....	....	6	2	56	Fort William.
....	....	....	....	....	....	....	....	....	....	....	....	7	.....	15	Burk's Falls.
....	....	....	....	....	....	....	....	....	....	....	2	6	.....	41	North Bay.
....	....	....	....	....	1	....	....	....	....	....	....	....	2	18	Massey.
....	....	....	....	....	....	3	....	....	....	....	....	....	....	49	Webbwood.
....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	Sturgeon Falls.
....	....	....	....	....	....	....	....	....	....	....	....	....	1	43	Fort Francis.
5	11	15	....	10	6	15	8	5	10	....	297	967	123	5,192	

TABLE No. 5.

Shewing the total number of prisoners, male and female sentenced under each offence, during the year ending 30th September, 1902.

Offences.	Males.	Females.	Total.
Abortion			
Abusive and obscene language	29	4	33
Arson	13		13
Assault	164	4	168
Assault felonious	75	3	78
Attempted suicide	2	1	3
Abduction	1		1
Bigamy	6	1	7
Breaches of the peace	23	4	27
Breaches of by-laws	19		19
Burglary	24		24
Contempt of Court	73	2	75
Carrying unlawful weapons	16	1	17
Counterfeiting and passing counterfeit money	4		4
Cruelty to animals	6		6
Cutting, wounding and attempting same	10		10
Deserting employment	56		56
Destroying and injuring property	56	3	59
Drunk and disorderly	1,500	397	1,897
Embezzlement			
Escaping from or obstructing constables	20		20
Escaping from prison	6		6
Forgery	11		11
Fraud and obtaining money or goods under false pretences	53	4	57
Gambling	1		1
Giving liquor to Indians	11		11
Horse, cattle and sheep stealing	30		30
Housebreaking and robbery	65	1	66
Incendiarism	1		1
Indecent assault	47		47
Inmates and frequenters of houses of ill-fame	33	57	90
Keeping houses of ill-fame	14	48	62
Larceny	757	60	817
Manslaughter	1	1	2
Misdemeanour			
Murder	2		2
Perjury	4	1	5
Prostitution		11	11
Rape and assault with intent	15		15
Refusing bail			
Receiving stolen property	9	1	10
Seduction	6		6
Selling liquor without license	12	3	15
Shooting with intent	7	1	8
Stabbing	5		5
Threatening and seditious language	9	1	10
Trespass	293	4	297
Unlawful shooting			
Vagrancy	844	123	967
Other offences not enumerated	102	21	123
Totals	4,435	757	5,192

TABLE No. 6.

Shewing the social status and habits of the prisoners committed during the year ending 30th September, 1902.

Name of gaol.	Married.	Unmarried.	Neither read nor write.	Temperate.	Intemperate.	Total committed to gaol.
Barrie	37	61	6	23	75	98
Berlin	34	68	11	57	45	102
Belleville	60	81	43	92	49	141
Brantford	77	131	38	63	145	208
Brampton	12	42	1	33	21	54
Brockville	58	100	35	53	105	158
Bracebridge	14	21	4	22	13	35
Cayuga	23	71	9	20	74	94
Cornwall	14	29	13	14	29	43
Cobourg	71	61	34	79	53	132
Chatham	56	62	14	92	26	118
Goderich	12	23	9	20	15	35
Guelph	33	49	7	51	31	82
Hamilton	142	337	78	111	368	479
Kingston	17	69	7	22	64	86
London	168	378	37	239	307	546
Lindsay	20	31	6	23	28	51
L'Orignal	19	13	16	22	10	32
Milton	14	95	6	19	90	109
Napanee	9	22	12	12	19	31
Ottawa	288	286	151	163	411	574
Owen Sound	41	57	15	31	67	98
Orangeville	13	22	9	13	22	35
Perth	51	59	20	28	82	110
Picton	16	22	7	9	29	38
Pembroke	7	39	18	11	35	46
Peterboro'	40	92	18	87	45	132
Port Arthur	11	61	15	9	63	72
Parry Sound	14	38	10	29	23	52
Rat Portage	27	52	7	12	67	79
Simcoe	21	22	8	18	25	43
St. Catharines	26	47	8	30	43	73
Sarnia	34	149	14	73	110	183
Stratford	20	52	12	41	31	72
Sandwich	47	84	19	24	107	131
St. Thomas	13	34	7	36	11	47
Sault Ste. Marie	74	112	43	118	68	186
Toronto	1,150	1,366	308	455	2,061	2,516
Walkerton	25	26	6	32	19	51
Woodstock	30	105	26	42	93	135
Welland	37	198	20	103	132	235
Whitby	25	28	6	20	33	53
Lock-ups :						
Gore Bay	5	8	3	11	2	13
Little Current	11	21	12		32	32
Manitowaning	5	7	1		12	12
Mattawa		3	2		3	3
Minden	3	6	1	1	8	9
Sudbury	71	240	76	116	195	311
Huntsville	4	15	5	10	9	19
Fort William	23	47	25	20	50	70
Burk's Falls	6	13	1	18	1	19
North Bay	10	41	3	9	42	51
Massey	3	16	9	2	17	19
Webwood	13	53	17	12	54	66
Sturgeon Falls	2	6			8	8
Fort Francis	10	43	9	6	47	53
Totals	3,066	5,214	1,297	2,656	5,624	8,280

TABLE

Shewing the number of prisoners upon whom sentences were passed, the nature of such
Court during the year

Name of gaol.	Total number of prisoners sentenced during the year.			Where sentenced to.					
	Male.	Female.	Total.	To gaol and afterwards transferred to the Central Prison.	To Central Prison direct.	To gaol and afterwards to Female Reformatory.	To Female Reformatory direct.	To Provincial Penitentiary.	To Reformatory for Boys.
Barrie	65	5	70	3	13	.. ..	1	3	....
Berlin	51	1	52	4	7	.....	1	2	1
Belleville	76	10	86	1	10	1	3	1	7
Brantford	102	8	110	2	17	.....	1	2	2
Brampton	30	.....	30	1	4	...	.....	.....	....
Brockville	95	7	102	.....	20	.....	5	1	1
Bracebridge	21	4	25	1	3	1	1	2	
Cayuga	78	2	80	1	10	.....		1	.....
Cornwall	29	1	30	.....	4	...	...	3	.....
Cobourg	106	8	114	3	5	1	..	3	2
Chatham	59	8	67	3	14	6	.....	6	.....
Goderich	13	.....	13	.....	2	...	.....	.....	.....
Guelph	26	5	31	1	3	.....	2	2	1
Hamilton	262	42	304	26	32	1	8	11	3
Kingston	63	4	67	.....	5	...	2	3	2
London	179	22	201	11	11	.....	3	8	4
Lindsay	24	1	25	1	3	...	...	...	....
L'Orignal	10	....	10	.....	.....	.....	.....	1	.....
Milton	26	3	29	2	.....	.....	.....	1	1
Napanee	24	1	25	.....	4	1	.....	1	2
Ottawa	247	82	329	12	15	11	1	3	5
Owen Sound	59	5	64	.....	2	.....	3	1	2
Orangeville	31	2	33	.....	.....	.....	.....	.....	.....
Perth	76	10	86	3	.....	2	.....	.....	1
Picton	4	.....	4	.....	.....	.....	.....	.....	.....
Pembroke	37	3	40	.....	1	.....	.....	4	.....
Peterboro'	46	4	50	.....	2	...	...	1	.....
Port Arthur	60	.....	60	.....	4	.....	.....	.....	.....
Parry Sound	27	.....	27	.....	2	.....	.....	.....	.....
Rat Portage	55	2	57	1	2	.....	.....	.....	.....
Simcoe	15	.....	15	.....	1	.....	.....	2	1
St. Catharines	40	5	45	1	7	..	3	1	.....
Sarnia	118	3	121	.....	13	.....	1	2	.....
Stratford	26	3	29	2	2	.....	1	3	1
Sandwich	67	5	72	.....	8	.....	...	4	....
St. Thomas	23	.....	23	8	3	.....	....	.....	1
Sault Ste. Marie	98	15	113	2	17	.....	1	1	1
Toronto	1,166	450	1,616	147	131	16	44	27	8
Walkerton	25	5	30	... ...	1	.....	.....	.....	1
Woodstock	78	3	81	4	8	.....	1	.....	1
Welland	210	1	211	25	23	....	.....	5	1
Whitby	39	.....	39	.....	1	.....	.....	5	2
Lock-ups:									
Gore Bay	11	.....	11	... ...	2	.....	...	....	....
Little Current	32	.....	32	.....	.....	.....	.....	.....	.....
Manitowaning	12	.....	12	.....	.....	.....	.....	...	.....
Mattawa	2	.....	2	.....	.....	.....	.....	....	.....
Minden	7	... .	7	.....	.....	.....	.....	.....	.....
Sudbury	270	14	284	1	10	.....	.....	.....	.....
Huntsville	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort William	50	6	56	... ...	.....	.....	.....	.....	.....
Burk's Falls	15	.....	15	.....	.....	.....	.....	.....	.....
North Bay	40	1	41	.....	2	.....	.....	2	.....
Massey	18	.....	18	.....	.....	....	.....	.....	.....
Webbwood	43	6	49	.....	.....	.....	.....	.....	.....
Sturgeon Falls	6	.....	6	.....	.....	...	.....	...	.....
Fort Francis	43	.....	43	.....	1	.....	.....	....	1
Totals	4,435	757	5,192	266	425	40	82	112	52

No. 7.

sentences and the disposal of those who elected to be tried at the County Judges' Criminal ending 30th September, 1902.

Died while undergoing sentence.	To gaol and there detained until expiration of sentence or payment of fine.	Capital and corporal sentences. Number of prisoners sentenced to death and executed.	Number of prisoners sentenced to death and commuted to imprisonment.	Number of prisoners sentenced to corporal punishment with imprisonment.	County judge's criminal court. Acquitted on trial and discharged from custody.	Found guilty and sentenced.	Total number who elected to be tried.	Name of gaol.
	50							
	37				2	20	22	Barrie.
	63				6	12	18	Berlin
	86				6	13	19	Belleville.
	25				10	9	19	Brantford.
	75				6	5	11	Brampton.
	17			1	3	19	22	Brockville.
	68					6	6	Bracebridge.
	23				4	4	8	Cayuga.
3	97				1	1	2	Cornwall.
	38				4	13	17	Cobourg.
	11				3	7	10	Chatham.
	22				3	2	5	Goderich.
	223					11	11	Guelph
	55				7	50	57	Hamilton.
1	163					4	4	Kingston.
	21				17	40	57	London
	9				4	1	5	Lindsay.
	25				1	3	4	L'Orignal.
	17				4	4	8	Milton.
	282				2	1	3	Napanee.
1	55				5	15	20	Ottawa.
2	31				1	6	7	Owen Sound.
1	79				1	1	2	Orangeville.
	4				5	5	10	Perth
2	33					3	3	Picton.
1	46				2	11	13	Pembroke.
	56					1	1	Peterboro'.
	25					1	1	Port Arthur.
	54				7	5	12	Parry Sound.
	11				1	3	4	Rat Portage.
	33				1	1	2	Simcoe.
	105				7	6	13	St Catharines.
	20				8	2	10	Sarnia.
	60			1		1	1	Stratford.
	11				6	7	13	Sandwich.
1	90	1		1	4	3	7	St. Thomas.
11	1,232	1			13	19	32	Sault Ste. Marie.
1	27			1	9	15	24	Toronto.
	67				4		4	Walkerton.
	157				4	5	9	Woodstock.
	31				2	6	8	Welland.
					1	4	5	Whitby.
	9							Lock-ups:
	32					8	8	Gore Bay.
	12							Little Current.
	2					12	12	Manitowaning.
	7					2	2	Mattawa.
	273				2	7	9	Minden.
					2		2	Sudbury.
	56							Huntsville.
	15				8	56	64	Fort William.
	37							Burk's Falls.
	18				10	41	51	North Bay.
	49				1	14	15	Massey.
	6				12	41	53	Webbwood.
	41				2	6	8	Sturgeon Falls.
					10	43	53	Fort Frances.
24	4,191	2		4	211	575	786	

TABLE

Showing the number of prisoners, how maintained, cost of maintenance, and

Name of gaol.	Name of gaoler	How maintained.					Expenditure.	
		Total number of prisoners committed during the year.	Number of prisoners whose maintenance was defrayed by the Province.	Number of prisoners whose maintenance was defrayed by the municipalities.	Number of days custody of Government prisoners.	Number of days custody of municipal prisoners.	Cost of food, fuel and clothing.	Cost of official salaries.
							$ c	$ c.
Barrie	Jonathan Sissons	98	55	43	2,155	1,372	1,104 35	1,600 00
Berlin	Jonathan Cook	102	33	69	738	1,417	701 24	1,275 00
Belleville	H. A. Appleby	141	78	63	1,806	2,590	710 00	1,550 00
Brantford	John T. Brown	208	65	143	803	2,340	611 42	1,700 00
Brampton	Joshua Modeland	54	21	33	585	636	273 65	1,150 00
Brockville	A. D. McDougall	158	52	106	1,157	1,378	786 51	1,450 00
Bracebridge	Richard Mills	35	35		1,057		720 48	675 00
Cayuga	John A. Murphy	94	21	73	652	2,801	653 11	1,225 00
Cornwall	Donald McDonell	43	15	28	439	678	431 98	1,315 00
Cobourg	H. J. Snelgrove	132	53	79	1,371	13,640	4,231 40	2,411 65
Chatham	Robert Mercer	118	40	78	713	1,038	401 75	1,951 25
Goderich	Joseph Griffen	35	13	22	102	1,868	738 00	1,420 00
Guelph	John McNab	82	39	43	942	560	1,045 32	1,375 00
Hamilton	James Ogilvie	479	108	371	2,730	5,943	1,695 18	2,905 00
Kingston	Charles H. Corbett	86	29	57	950	1,955	1,241 48	1,950 00
London	Robert Boston	546	157	389	2,192	3,447	2,409 68	3,601 99
Lindsay	Andrew Jackson	51	9	42	208	1,284	457 00	1,180 00
L'Orignal	John D. Cameron	32	12	20	346	2,964	484 92	1,165 00
Milton	William VanAllen	109	6	103	213	2,000	270 27	1,050 00
Napanee	Zara August. VanLuven	31	14	17	468	157	457 80	1,100 00
Ottawa	William Kehoe	574	64	510	3,278	8,681	2,287 00	2,902 50
Owen Sound	John Miller	98	27	71	854	4,729	1,711 65	1,850 00
Orangeville	Charles Bowles	35	3	32	28	3,340	874 23	1,300 00
Perth	W. H Grant	110	25	85	463	5,939	839 37	1,560 00
Picton	Wm. E. Patterson	38	20	28	137	89	115 98	940 00
Pembroke	James Wright	46	22	24	623	2,279	224 75	1,306 50
Peterboro'	Henderson Nesbitt	132	13	119	710	4,167	976 95	1,350 00
Port Arthur	Thomas Penfold	72	72		3,484		846 71	1,472 50
Parry Sound	T. W. George	52	52		1,881		1,259 95	575 00
Rat Portage	Wm. H McKay	79	79		1,365		1,031 90	2,044 00
Simcoe	Thos. W. Butler	43	8	35	234	486	320 50	1,075 00
St. Catharines	Thos. P. Blain	73	36	37	725	663	555 11	1,490 00
Sarnia	R. G. McArthur	183	38	145	920	4,205	631 31	1,611 00
Stratford	Hugh Nichol	72	15	57	880	1,746	709 84	1,412 49
Sandwich	William J. Sparks	131	52	79	866	2,356	902 00	2,100 00
St. Thomas	W. W. Moore	47	16	31	515	1,329	133 49	1,862 50
Sault Ste. Marie	Alexander McKellar	186	186		4,646		1,273 58	1,897 50
Toronto	G. R. Vanzant	2,516	464	2,052	10,690	45,381	8,467 46	15,276 91
Walkerton	Donald McKechnie	51	20	31	524	2,025	460 89	1,375 00
Woodstock	John Cameron	135	29	106	436	2,798	1,376 42	1,650 00
Welland	John Coulson	235	45	190	818	6,216	1,085 86	1,900 00
Whitby	W. J. Davey	53	32	21	786	1,302	458 68	1,400 00
Lock-ups								
Gore Bay	Alex. Thorburn	13	13		466		200 29	423 75
Little Current	John G. Simms	32	32		70		51 00	200 00
Manitowaning	Thomas Gorley	12	12		49		89 70	200 00
Mattawa	John McMeekin	3	3		40		280 55	475 00
Minden	R. C. Garrett	9	9		42		10 35	150 00
Sudbury	Terrance Keaney	311	126	185	1,635	945		500 00
Huntsville	Fred'k Francis	19	11	8				200 00
Fort William	Richard McNabb	70	70		1,958		1,223 70	800 00
Burk's Falls	William Wilson	19	19		48		179 47	300 00
North Bay	S. A. Huntington	51	51		1,259		1,079 67	913 00
Massey	E. Chambers	19	9	10	11	23	5 00	100 00
Webbwood	William Irving	66	49	17	77	12	1 45	137 50
Sturgeon Falls	Chas. Rochon	8	8		62		15 00	100 00
Fort Francis	John Perry	53	8	45	312	93		450 00
		8,280	2,583	5,697	60,519	146,872	49,125 35	85,350 04

No. 8.

salaries of various gaol officials for the year ended 30th September, 1902.

Expenditure.—*Continued.*					Salaries.				
Cost of repairs.	Total gaol expenditure for the year.	Average cost per prisoner for food, clothing, fuel and repairs.	Average cost per prisoner for salaries and wages.	Average cost per prisoner for entire gaol expenditure.	Gaolers.	Turnkeys.	Matrons.	Gaol surgeons.	Name of gaol.
$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
43 83	2,748 18	11 72	16 32	28 04	800 00	550 00	150 00	100 00	Barrie.
5 00	1,981 24	6 92	12 50	19 42	560 00	450 00	140 00	125 00	Berlin.
.....	2,263 00	5 03	10 99	16 02	600 00	450 00	300 00	200 00	Belleville.
148 45	2,459 87	3 65	8 17	11 82	750 00	500 00	250 00	200 00	Brantford.
27 90	1,451 55	5 58	21 30	26 88	500 00	400 00	200 00	50 00	Brampton.
195 79	2,432 30	6 21	9 18	15 39	800 00	400 00	150 00	100 00	Brockville.
.....	1,395 48	20 58	19 28	39 86	500 00	.....	50 00	125 00	Bracebridge
235 00	2,113 11	9 44	13 03	22 47	600 00	365 00	120 00	140 00	Cayuga.
.....	1,746 93	10 04	30 58	40 62	740 00	350 00	125 00	100 00	Cornwall.
495 82	7,138 87	35 81	18 27	54 08	800 00	992 65	344 00	275 00	Cobourg.
400 65	2,753 65	6 80	16 53	23 33	800 00	596 25	380 00	175 00	Chatham.
.....	2,158 00	21 08	40 57	61 65	600 00	500 00	200 00	120 00	Goderich.
55 75	2,476 07	13 42	16 77	30 19	600 00	475 00	200 00	100 00	Guelph.
199 45	4,799 63	3 96	6 06	10 02	1,000 00	1,405 00	350 00	150 00	Hamilton.
842 26	4,033 74	24 23	22 67	46 90	800 00	800 00	200 00	150 00	Kingston.
1,280 10	7,291 77	6 76	6 59	13 35	750 00	1,801 99	700 00	350 00	London.
21 90	1,658 90	9 39	23 13	32 52	500 00	400 00	200 00	80 00	Lindsay.
61 25	1,911 17	17 07	36 40	53 47	600 00	365 00	150 00	50 50	L'Orignal.
23 65	1,343 92	2 69	9 63	12 32	500 00	400 00	100 00	50 00	Milton.
100 00	1,657 80	17 99	35 48	53 47	525 00	400 00	100 00	75 00	Napanee.
114 07	5,303 57	4 18	5 05	9 23	800 00	1,552 50	350 00	200 00	Ottawa.
88 00	3,649 65	18 36	18 88	37 24	800 00	500 00	300 00	250 00	Owen Sound.
9 00	2,183 23	25 23	37 14	62 37	600 00	400 00	200 00	100 00	Orangeville.
23 75	2,423 12	7 84	14 18	22 02	800 00	400 00	200 00	160 00	Perth.
.....	1,055 98	3 05	24 73	27 78	400 00	365 00	100 00	75 00	Picton.
10 00	1,561 25	5 54	28 40	33 94	600 00	456 50	150 00	100 00	Pembroke.
.....	2,326 95	7 40	10 22	17 82	650 00	400 00	150 00	150 00	Peterboro'.
.....	2,319 21	11 76	20 45	32 21	600 00	547 50	175 00	150 00	Port Arthur.
.....	1,834 95	24 23	11 05	35 28	400 00	.....	50 00	125 00	Parry Sound.
.....	3,075 90	13 06	25 87	38 93	900 00	744 00	200 00	200 00	Rat Portage.
87 70	1,483 20	9 49	25 00	34 49	400 00	400 00	200 00	75 00	Simcoe.
307 76	2,352 87	11 82	20 41	32 23	720 00	420 00	200 00	150 00	St. Catharines.
100 00	2,342 31	3 99	8 80	12 79	650 00	561 00	200 00	200 00	Sarnia.
51 39	2,173 72	10 57	19 62	30 19	600 00	441 24	250 00	121 25	Stratford.
.....	5,602 00	6 88	16 03	22 91	600 00	1,050 00	250 00	200 00	Sandwich.
.....	1,995 99	2 84	39 62	42 46	600 00	912 50	200 00	150 00	St. Thomas.
18 90	3,189 98	6 94	10 20	17 14	600 00	997 50	100 00	200 00	Sault Ste. Marie.
975 69	24,720 06	3 75	6 07	9 82	2,000 00	11,086 91	990 00	1,200 00	Toronto.
200 00	2,035 89	12 95	26 96	39 91	650 00	375 00	250 00	100 00	Walkerton.
198 44	3,224 86	11 66	12 22	23 88	800 00	500 00	200 00	150 00	Woodstock.
25 00	3,010 86	4 73	8 08	12 81	700 00	900 00	200 00	100 00	Welland.
50 50	1,909 18	9 61	26 41	36 02	700 00	450 00	150 00	100 00	Whitby.
									Lock-ups :
....	624 04	15 41	32 59	48 00	300 00	23 75	100 00	.. ..	Gore Bay.
.. ...	251 00	1 59	6 25	7 84	200 00	..	.....	...	Little Current.
....	289 70	7 48	16 66	24 14	200 00	..	... ..	..	Manitowaning
89 10	844 65	123 22	158 33	281 55	300 00	.....	75 00	100 00	Mattawa.
.. ..	160 35	1 15	16 66	17 81	150 00	.	.	.	Minden.
....	500 00	..	1 60	1 60	400 00	.	100 00	.....	Sudbury.
....	200 00	..	10 52	10 52	240 00	...	..	...	[illegible]ville.
12 30	2,036 00	17 66	11 42	29 08	500 00	.	100 00	200 00	Fort William.
7 00	486 47	9 81	15 79	25 60	250 00	.	50 00	..	Burk's Falls.
....	1,992 67	21 17	17 90	39 07	550 00	93 00	120 00	150 00	North Bay.
10 00	115 60	1 66	11 11	12 77	100 00	.	.	.	Massey.
....	188 95	02	2 08	2 10	137 50	.	.	.	Webbwood.
....	115 00	1 87	12 50	14 37	100 00	....	..	.. ..	Sturgeon Falls
.....	450 00	...	8 49	8 49	450 00	.	.	... ...	Fort Francis.
6,515 40	140,990 79	6 72	10 30	17 02	32,732 50	35,177 29	10,019 00	7,491 25	

TABLE No. 9.

Shewing the number of escapes and deaths; the revenue derived from prison labour, the cost of diet, the accommodation of the various gaols and the highest and lowest number of prisoners in custody during the year ending 30th September, 1902.

Name of gaol.	Prisoners who escaped and evaded recapture.	Prisoners who escaped and were recaptured.	Prisoners who died.	Number of cells in each goal.	Greatest number of prisoners confined in gaol at any time during the year.	Lowest number of prisoners confined in gaol at any time during the year.	Actual cash revenue derived from prison labor.	Cost of daily rations for prisoners.
								c.
Barrie				24	18	5		11.67
Berlin				20	13	1		7.75
Belleville				38	23	5		5.75
Brantford		1		24	16	3		6.10
Brampton				25	12			6.90
Brockville				33	14	2		6.88
Bracebridge				15	10			30.
Cayuga				14	25	2		9.50
Cornwall				17	8			8.50
Cobourg			3	24	62	31		12.
Chatham				38	12	1		8.75
Goderich				12	8	2		9.20
Guelph				35	14	1		9.50
Hamilton				60	34	15		6.30
Kingston				53	19	5		8.
London			1	57	33	11		6 60
Lindsay				26	9			5.25
L'Orignal	1			18	13	6		6.75
Milton				23	13	3		6 60
Napanee				18	5			7.
Ottawa				93	45	18		6.33
Owen Sound			1	32	24	6		12.25
Orangeville			2	23	14	7		9 75
Perth		1	1	18	28	9		6.25
Picton				26	4			9.80
Pembroke		1	2	24	16	3		7.50
Peterborough			1	18	20			12.38
Port Arthur				22	19	1		10.00
Parry Sound				16	9	3		30.00
Rat Portage				11	8	1		20.
Simcoe				24	5			7 50
St. Catharines				38	9	1		10 00
Sarnia	1			19	23	5		7.50
Stratford				20	14	3		7 50
Sandwich				45	14	4		8.50
St. Thomas	1	1		16	14	1		6.46
Sault Ste. Marie	2		1	34	23	7		9 75
Toronto			11	270	217	111		6.50
Walkerton			1	24	14	3		5.50
Woodstock				32	18	2		8.96
Welland	1			50	39	5		6.50
Whitby				25	15	3		7.67
Lock-ups—								
Gore Bay	2			5	4			30
Little Current				5	4			30.
Manitowaning				5	3	1		30.
Mattawa				8	2	1		30.
Minden				6	1			45.
Sudbury	3	1		12	27	1		8.
Huntsville				7	4			30.
Fort William				12	12	1		13.65
Burk's Falls				7	3			30.
North Bay				13	9			
Massey				5	9			
Webbwood				7	7			
Sturgeon Falls				7	3	1		45.
Fort Francis		2		5	4			
Totals	11	7	24	1,568	1,045	291		

TABLE No. 10.

Shewing the daily cost per prisoner in each of the gaols, excluding the district lock-ups, for the year ending 30th September, 1902.

Name of gaol.	Number of prisoners committed during the year.	Total days' stay of prisoners during the year.	Cost of fuel, food and clothing.	Average cost per day for each prisoner.
			$ c.	c.
Barrie	98	3,527	1,104 35	31
Berlin	102	2,155	701 24	33
Belleville	141	4,396	710 00	16
Brantford	208	3,143	611 42	19
Brampton	54	1,221	273 65	22
Brockville	158	2,535	786 51	31
Bracebridge	35	1,057	720 48	68
Cayuga	94	3,453	653 11	19
Cornwall	43	1,117	431 98	39
Cobourg	132	15,011	4,231 40	28
Chatham	118	1,751	401 75	23
Goderich	35	1,970	738 00	37
Guelph	82	1,502	1,045 82	70
Hamilton	479	8,673	1,695 18	20
Kingston	86	2,905	1,241 48	43
London	546	5,639	2,409 68	43
Lindsay	51	1,492	457 00	31
L'Orignal	32	3,310	484 92	15
Milton	109	2,213	270 27	12
Napanee	31	625	457 80	73
Ottawa	574	11,959	2,287 00	20
Owen Sound	98	5,583	1,711 65	31
Orangeville	35	3,368	874 23	26
Perth	110	6,402	839 37	13
Picton	38	226	115 98	51
Pembroke	46	2,902	244 75	8
Peterboro'	132	4,877	976 95	20
Port Arthur	72	3,484	846 71	24
Parry Sound	52	1,881	1,259 95	67
Rat Portage	79	1,365	1,031 90	76
Simcoe	43	720	320 50	45
St. Catharines	73	1,388	555 11	40
Sarnia	183	5,125	631 31	12
Stratford	72	2,626	709 84	27
Sandwich	131	3,222	902 00	28
St. Thomas	47	1,844	133 49	7
Sault Ste. Marie	186	4,646	1,273 58	27
Toronto	2,516	56,071	8,467 46	15
Walkerton	51	2,549	460 89	18
Woodstock	135	3,234	1,376 42	43
Welland	235	7,034	1,085 86	15
Whitby	53	2,088	458 68	22
Totals	7,595	200,289	45,989 17	23

TABLE No. 11.

Shewing the number of prisoners, male and female, *sentenced* during the year ending 30th September, 1901, and a comparison of the same with the current year.

Name of Gaol.	No. of prisoners *sentenced* in the year ending 30th September, 1901.			No. of prisoners *sentenced* in the year ending 30th September, 1902.			Increase.			Decrease.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Barrie	56	4	60	65	5	70	9	1	10			
Berlin	50	1	51	51	1	52	1		1			
Belleville	67	7	74	76	10	86	9	3	12			
Brantford	85	7	92	102	8	116	17	1	18			
Brampton	32		32	30		30				2		2
Brockville	74	15	89	95	7	102	21		21		8	8
Bracebridge	32	5	37	21	4	25				11	1	12
Cayuga	98	4	102	78	2	80				20	2	22
Cornwall	43	1	44	29	1	30				14		14
Cobourg	104	16	120	106	8	114	2		2		8	8
Chatham	55	5	60	59	8	67	4	3	7			
Goderich	24		24	13		13				11		11
Guelph	29		29	26	5	31		5	5	3		3
Hamilton	298	40	338	262	42	304		2	2	36		36
Kingston	61	7	68	63	4	67	2		2		3	3
London	208	15	223	179	22	201		7	7	29		29
Lindsay	36	1	37	24	1	25				12		12
L'Orignal	7	2	9	10		10	3		3		2	2
Milton	29	5	34	26	3	29				3	2	5
Napanee	23	6	29	24	1	25	1		1		5	5
Ottawa	353	109	462	247	82	329				106	27	133
Owen Sound	76	3	79	59	5	64		2	2	17		17
Orangeville	33	3	36	31	2	33				2	1	3
Perth	71	18	89	76	10	86	5		5		8	8
Picton	8		8	4		4				4		4
Pembroke	25	2	27	37	3	40	12	1	13			
Peterboro'	58		58	46	4	50		4	4	12		12
Port Arthur	57	2	59	60		60	3		3		2	2
Parry Sound	28	2	30	27		27				1	2	3
Rat Portage	63	2	65	55	2	57				8		8
Simcoe	21	5	26	15		15				6	5	11
St. Catharines	52	4	56	40	5	45		1	1	12		12
Sarnia	114	4	118	118	3	121	4		4		1	1
Stratford	35	1	36	26	3	29		2	2	9		9
Sandwich	69	5	74	67	5	72				2		2
St. Thomas	36	4	40	23		23				13	4	17
Sault Ste. Marie	77	2	79	98	15	113	21	13	34			
Toronto	1,083	404	1,487	1,166	450	1,616	83	46	129			
Walkerton	43	3	46	25	5	30		2	2	18		18
Woodstock	97	5	102	78	3	81				19	2	21
Welland	193	3	196	210	1	211	17		17		2	2
Whitby	37	1	38	39		39	2		2		1	1
Lock-ups:												
Gore Bay	6		6	11		11	5		5			
Little Current	37	1	38	32		32				5	1	6
Manitowaning	12		12	12		12						
Mattawa	5		5	2		2				3		3
Minden	7		7	7		7						
Sudbury	324	7	331	270	14	284		7	7	54		54
Huntsville	17		17									
Fort William	48	2	50	50	6	56	2	4	6			
Burk's Falls	8		8	15		15	7		7			
North Bay	34	2	36	40	1	41	6		6		1	1
Massey	21		21	18		18				3		3
Webbwood	35		35	43	6	49	8	6	14			
Sturgeon Falls	6		6	6		6						
Fort Francis				43		43	43		43			
Totals	4,600	735	5,335	4,435	757	5,192	287	110	397	435	88	523

TWENTY-NINTH ANNUAL REPORT

OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES

UPON THE

CENTRAL PRISON

AND REFORMATORIES

OF THE

PROVINCE OF ONTARIO,

BEING FOR THE YEAR ENDING 30TH SEPTEMBER,

1902.

Central Prison

Warden's Residence

OFFICE OF THE
INSPECTOR OF PRISONS AND PUBLIC CHARITIES, ONTARIO.

PARLIAMENT BUILDINGS,
TORONTO, November, 1902.

SIR,—I have the honor to transmit herewith, to be presented to His Honor the Lieutenant-Governor, the Twenty-Ninth Annual Report upon the Central Prison and Reformatories of the Province of Ontario, being for the official year ending on the 30th September, 1902.

I have the honor to be, Sir,

Your obedient servant,

JAMES NOXON,
Inspector.

THE HONORABLE J. R. STRATTON, M.P.P.,
Secretary of the Province of Ontario,
Toronto.

PARLIAMENT BUILDINGS,
TORONTO, November, 1902.

To the Honorable SIR OLIVER MOWAT, *Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George, Member of the King's Privy Council for Canada and Lieutenant-Governor of the Province of Ontario.*

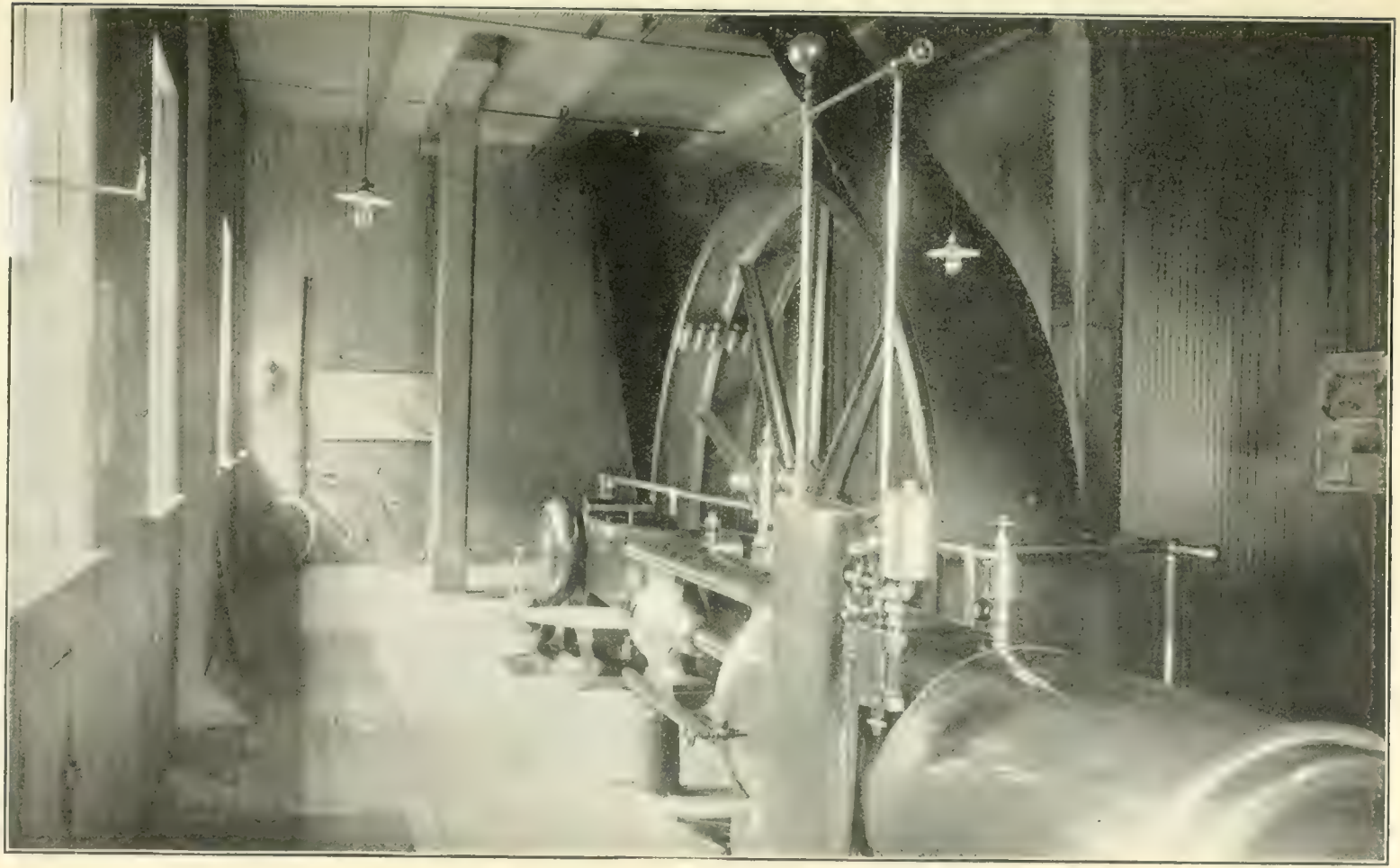
MAY IT PLEASE YOUR HONOR:

I beg to submit herewith the Twenty-Ninth Annual Report upon the Central Prison and Reformatories for the year ending on 30th September, 1902.

I have the honor to be,

Your Honor's most obedient servant,

J. R. STRATTON,
Provincial Secretary.



Lecture Room

CENTRAL PRISON.

INTRODUCTORY.

The committals during the year were 679, which with 340 in custody at commencement of the year, makes up the total number incarcerated during the year 1,019 as compared with 1,042 the previous year. The committals direct, number 427, and to Common gaols and transferred therefrom 252. The average daily population for the year was 325, and the average period of sentence was six months twenty-two days, as compared with 365 population, and seven months nineteen days period of sentences the preceding year. Of the number committed during the year 431 was for the first time in the Central Prison, 122 second time 59 third time, 22 fourth time, and the remaining 35 with varying frequency from five to nineteen times.

There were committed for vagrancy 140, as compared with 157 the previous year. The number discharged on ticket-of-leave was 48, and 19 were discharged on remission of sentence, together, being ten per cent of the total committments. Of the total number committed seven were total abstainers, 189 temperate, and 483 were intemperate. The illiterate were 73, read only 14 and 592 could both read and write. The total stay of prisoners was 118,500 days, a reduction of 14,693 as compared with 133,193 in 1901. The gross per capita cost per diem for maintainence was (55.61) fifty-five sixty one hundredths cents against (46.47) forty-six forty-seven hundredths cents in the previous year, an increase of (9.14) nine fourteen hundredth cents per diem, marking the still advancing cost of supplies consumed.

The total cost of maintainence outlay for the year was $58,748.52 against $61,919.10 the preceding year.

The following tabulated statement shows the results of the industrial operation at the Prison during the year ended 30th September, 1902.

STATEMENT No. 1.

Dr.

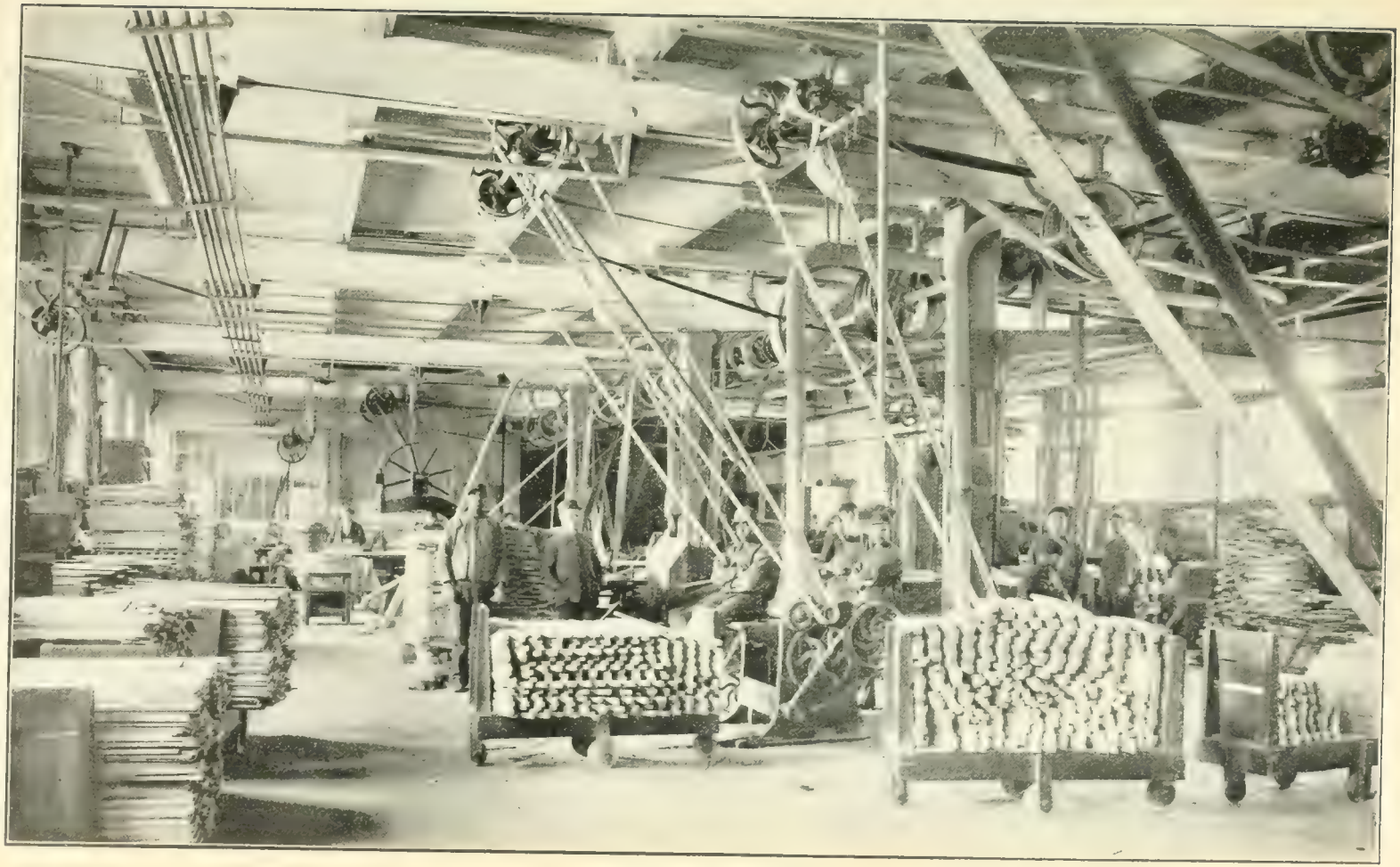
To stock on hand beginning of year	$71,790 63	
Amount of material and repairs	55,972 55	
" fuel and general expenses	9,809 88	
" salaries and wages	17,857 60	
Balance net gain	16,727 14	
		$172,157 80

Cr.

By sales	106,554 62	
Stock on hand close of year	65,603 18	
		$172,157 80

The net earnings for the year were $16,727.14 after paying gratuities to prisoners $658.15 or a total of $17,385.29.

Owing to the reduced prison population all prison industries were run shorthanded, and the net earnings were on this account to some extent diminished. The machinery and plant have been maintained in a high state of efficiency and in a condition to give the most economical results with the class of labor employed.



Section of Woodworking Shop

STATEMENT No. 2.

Statements of amounts chargeable to the various Industries in carrying on the manufacturing operations of the Central Prison.

	1901.	1902.
Stock on hand beginning of year	$83,065 09	$71,790 63
Shoe shop	3,148 35	2,995 84
Tailor shop	4,771 68	4,763 69
North shop	26,211 28	24,639 64
Woollen mill	7,608 01	8,180 47
Machine shop	5,920 07	9,400 03
Broom shop	880 88	776 43
Cordage shop	1,896 19	4,472 52
The piggery	205 35	210 00
The greenhouse	202 03	533 93
Salaries and wages	15,974 11	17,857 60
Fuel and general expenses	7,898 59	9,809 88
Net gain for the year	24,389 01	16,727 14
	$182,170 64	$172,157 80

STATEMENT No. 3.

Sales of the various Industries of the Central Prison.

	1901.	1902
Shoe shop	$4,685 47	$3,740 81
Tailor shop	7,664 02	7,394 52
North shop	46,596 39	44,230 46
Woollen mill	12,039 20	13,273 70
Machine shop	12,880 84	13,956 54
Broom shop	7,852 98	6,616 54
Cordage shop	16,590 96	15,887 64
The piggery	500 00	500 00
The greenhouse	762 45	788 75
Basket shop	21 25	
Miscellaneous	786 45	165 66
Stock on hand at close of year	71,790 63	65,603 18
	$182,170 64	$172,157 80

Section of Woodworking Shop.

STATEMENT No. 4.

General Statement of the books of the Central Prison, Toronto, of Industries and Maintenance combined for the year ending 30th September, 1902 Showing trial balance, inventory, net cost of maintenance, stock, resources and liabilities :

Name of Account.	Trial balance.		Inventory	Representative.		Stock.		Resources.	Liabilities.
	Dr.	Cr.		Dr.	Cr.	Dr	Cr.		
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Stock		415,848 63					415,848 63		370,343 36
Maintenance	96,683 45		37,498 32	59,185 13				37,498 32	
Industrial plant	150,530 75		150,530 75					150,530 75	
Shoe shop	1,114 91		1,536 31		421 40			1,536 31	
Tailor shop	4,278 20		4,569 14		290 94			4,569 14	
North shop	27,386 34		38,659 44		11,273 10			38,659 44	
Woollen mill	6,731 40		6,794 17		62 77			6,794 17	
Machine shop	11,668 37		11,744 12		75 75			11,744 12	
Broom shop		3,569 11			3,569 11				
Cordage shop		1,194 60			1,194 60				
The piggery		584 65							
The greenhouse	3,045 18		2,300 00	745 18				2,300 00	
Buildings	83,035 25							83,035 25	
Bank of Commerce	2,496 77		2,496 77					2,496 77	
Fuel account, stock	117 28		117 28					117 28	
Accounts receivable	56,352 82			2,462 63				53,305 54	
Installation rope plant		22,243 73							22,243 73
	443,440 72	443,440 72	256,246 30						
Net cost of maintenance transferred to stock acct.					45,505 27	45,505 27			
				62,392 94	62,392 94				
Credit to stock acct.						370,343 36			
						415,848 63	415,848 63		
Total								392,587 09	392,587 09

Certified correct,

J. O. ANDERSON,

Accountant.

Section of Woodturning Shop

The health of prisoners has continued good, the management has been vigilant and active, and discipline and good order well maintained. The dietary has been wholesome and well served, and there have been no complaints from prisoners as to their treatment.

Religious and Educational.

The religious and educational work continue to be conducted with commendable interest and undiminished activity. The organization for conducting it is composed of earnest and capable men, with whom there appears to be no faltering, but a constant pressing on to teach with fulness the will of the Master toward erring men. The night school is efficiently taught, and few prisoners there are, except those committed for the shorter term, who fail to learn to read and write before the expiration of their sentence. With the good work begun within the prison the Salvation Army, with its widespread organization, has unequalled facilities for continuing when prisoners go out, by meeting them at the prison gate, and directing them to a place of employment, in or out of the city, as the case may be, and encouraging them to persevere in a better course of life.

The report of the Warden, as well as other reports in respect to prison service and work are herewith transmitted.

James Noxon.
Inspector.

WARDEN'S REPORT.

Toronto, October 6th, 1902.

Mr. James Noxon, Inspector of Prisons, etc., Toronto.

Sir,—Enclosed please find the Annual Report of the Central Prison for the year ending September 30th, 1902. The most gratifying feature of this statement is the continued decrease in our population. You will observe the daily average is forty inmates per day less than in the preceding year. This is due to a variety of influences, the chief of which is the prevailing good times throughout all parts of the province. It is satisfactory to know that a considerable number of former inmates of this institution are now living reputable lives and earning good livelihoods at trades taught them when here.

For some time past we have been impressed with the danger that exists from the spread of tubercle, resulting from prison life. There are institutions for the custody of the criminal insane, and in our humble opinion it is quite as important that there should be an institution solely for the tuberculous criminal. The only possible means of isolating a tuberculous criminal is to shut him up, and when we consider that fresh air is one of the indispensable means of treatment, close confinement would be cruelty in the extreme. If, on the other hand, the tuberculous subject is given the freedom of the prison yard, he is a source of contamination to his fellow inmates. In this prison where we discharge six hundred men annually, one can hardly realize the danger to society in general. While sanitarii are built and aided by the Government for the treatment of

Paint Shop.

tubercle, it is equally if not more important to prevent the spread of this dread disease. In the words of Milton,

> "What boots it on one gate to make defence,
> And at another to let in the foe?"

During the past year, we have received valuable assistance from a large number of religious workers in the city. Our inmates have been greatly interested and benefited by their work. The night school at the Central Prison continues its successful course under the management of Mr. Spencer. I desire to express my appreciation of the loyal support I have received from the Central Prison staff in conducting the institution. Will you please accept my cordial thanks and convey the same to the Honorable, the Provincial Secretary for the kindness you have both extended to me on every requisite occasion.

I have the honor to be,

Sir,

Your obedient servant,

J. T. GILMOUR,
Warden.

ANNUAL STATEMENT OF EXPENDITURE.

On Maintenance Account at the Central Prison, Toronto, for year ending September, 30th, 1902.

Service.	Total expenditure, year ending 30th September, 1901.	Weekly cost per head.	Yearly cost per head.	Total expenditure, year ending 30th September, 1902.	Weekly cost per head.	Yearly cost per head.
	$ c.	cents.	$ c.	$ c.	cents.	$ c.
Medicine and medical comforts	750 42	3 95	2 06	334 06	1 98	1 03
Butchers' meat, fish etc	7,883 03	41, 54	21 60	7,827 72	46 30	24 08
Flour, bread, etc	3,472 58	18 29	9 51	3,597 30	21 29	11 07
Butter, etc	437 11	2 30	1 20	400 70	2 37	1 23
Groceries	2,357 57	12 42	6 46	2,098 97	12 42	6 46
Fruit and vegetables	1,236 13	6 52	3 38	1,164 60	6 88	3 58
Bedding, clothing and shoes	5,757 61	30 33	15 77	5,450 87	32 25	16 77
Fuel	2,838 39	14 96	7 78	1,619 33	9 58	4 98
Gas, oil, etc	1,001 54	5 28	2 74	861 43	5 10	2 65
Laundry, soap and cleaning	1,644 30	8 66	4 50	1,865 56	11 04	5 74
Furniture and furnishings	1,234 54	6 50	3 38	570 78	3 38	1 76
Farm, garden feed and fodder	1,356 01	7 15	3 72	1,466 66	8 67	4 51
Repairs and alterations	2,378 88	12 54	6 52	2,083 31	12 33	6 41
Printing, postage, stationery, etc	557 87	2 94	1 53	698 15	4 13	2 15
Water supply	683 92	3 60	1 87	684 19	4 06	2 11
Library, schools and religious instruction	914 05	4 80	2 51	708 07	4 19	2 18
Miscellaneous	1,364 08	7 20	3 74	1,449 96	8 58	4 46
Salaries and wages	26,051 07	137 26	71 37	25,866 66	153 06	79 59
Totals	41,919 10	326 24	169 64	58,748 32	347 61	180 76

Total day's stay of prisoners, 1901 : 133,193, average, 365.
Total day's stay of prisoners, 1902 : 118,500, average, 325.

Section of Cordage Mill

The first table shows the committals and discharges during the past three years:

	1900.	1901.	1902.
In custody at commencement of year (1st October)	374	391	340
Committed during the year	713	651	679
Transferred from Reformatory for Boys	....	....	....
Recaptured	....	....	....
Total number in custody during the year	1,087	1,042	1,019
Discharged on expiration of sentence	664	639	625
" payment of fine	7	4	12
" by remission of sentence	4	19	19
Transferred to common gaols as unfit for labor	2	1	7
Died in prison hospital	2	....	2
Transferred to a lunatic asylum	....	1	1
Removed to the Kingston Penitentiary	12	....	....
Ticket of leave	25	38	48
Escaped	....	....	2
Remaining in custody	391	340	303
Total discharges, deaths, etc	1,087	1,042	1,019

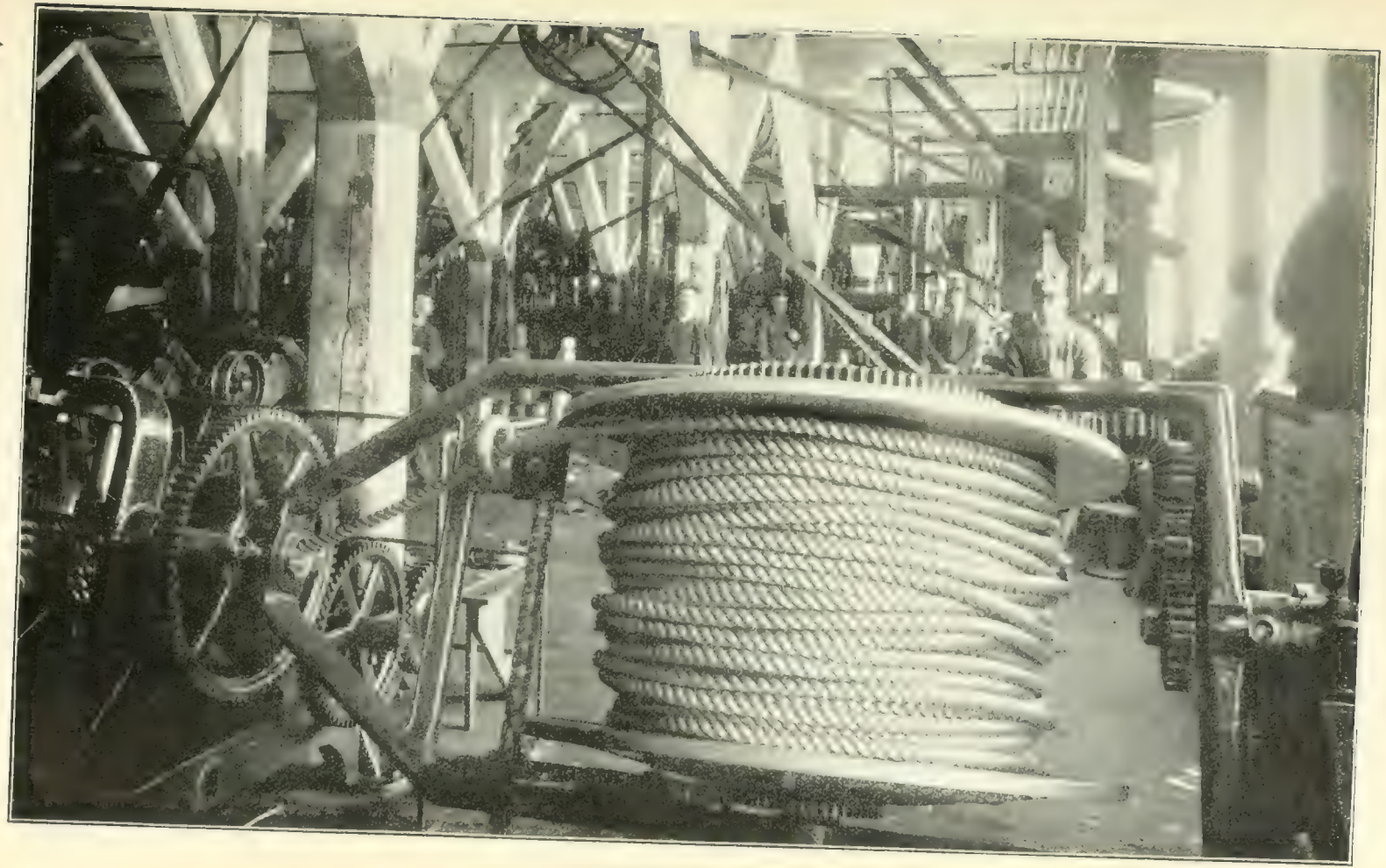
The number of prisoners sentenced direct to the prison, and of those sentenced to the gaols and afterwards removed to the Central Prison, is shown in the following summary:

	1900.	1901.	1902.
Sentenced direct	625	515	427
Transferred from common gaols	88	136	252
From Reformatory for Boys	....	....	....
Total	713	651	679

Social Condition.	Committed during the year.	Total commitments.
Married	192	5,660
Single	487	13,190
	679	18,850
Habits.		
Temperate	196	4,341
Intemperate	483	14,509
	679	18,850
Educational Status.		
Could read and write	592	14,880
Could read only	14	1,240
Could neither read nor write	73	2,730
	679	18,850

The prisoners received during the year who were reported to be of temperate habits represented 29 per cent. of the commitments: in 1901 the percentage was 34.00.

The total uneducated men represented 10.75 per cent. of the commitments of the year as compared with 13 per cent. in 1901.



Section of Cordage Mill

The table annexed shows how the prisoners were employed, and the number of days' work which was performed by them at the different industries:

	1901.	1902.
In the broom shop	18,897 days.	13,886 days.
" woodenware shop	21,025 "	23,090 "
" tailoring shop	2,643 "	3,762 "
" shoe shop	1,763 "	1,405 "
" machine shop, including blacksmith, tinsmith and engineer's shop	8,002 "	8,301 "
" south shop, woollen mill	3,956 "	3,306 "
" cordage shop	31,396 "	26,563 "
permanent improvement and work on the gardens and grounds	6,203 "	5,378 "
Number of days of productive labor	93,885	85,691
" domestic work	10,720	10,313
Total number of days worked	104,605	96,004

The proportion which the number of days of productive labor bears to the total stay of the prisoners during the two years will be seen in the following summary:

1901.	
Total stay of prisoners	133,193 days.
Number of days' productive labor	93,885
Proportion	70.48 per cent.
1902.	
Total stay of prisoners	118,500 days.
Number of days' productive labor	85,691
Proportion	72.31 per cent.

ANNUAL RETURN

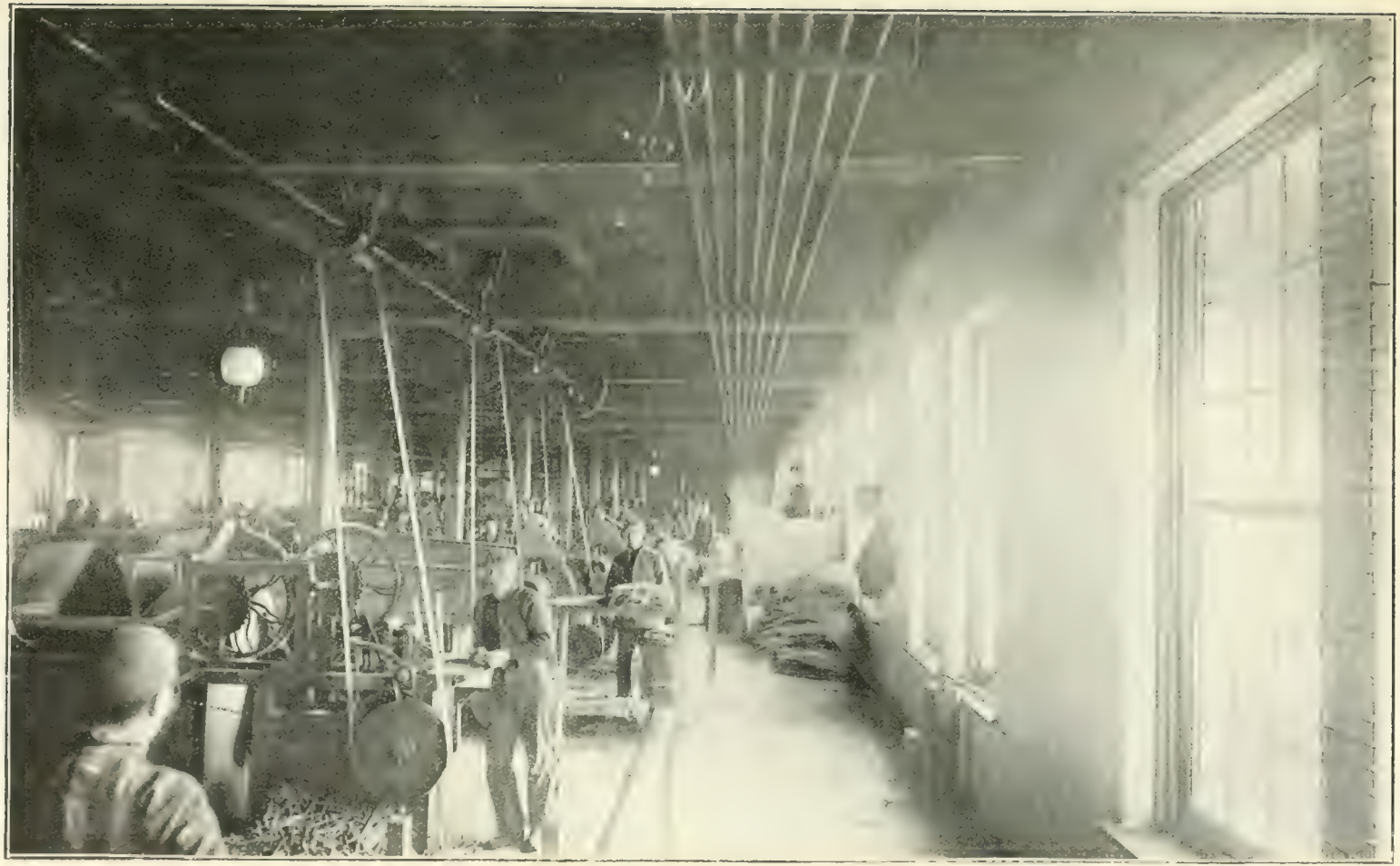
Of the Central Prison of Ontario for the year ending 30th September, 1902.

Remaining in custody 30th September, 1901	340
Committed during the year	679
	1,019
Discharged on expiration of sentence	625
" payment of fine	12
" remission of sentence	19
" ticket of leave	48
Transferred back to gaol	7
Died	2
Transferred to an asylum	1
Escaped	2
Remaining in custody 30th September, 1902	303
	1,019

Nature of Sentence.

Sentenced direct to Central Prison or to Common Gaol.

To Central Prison direct	427
To Common Gaols	252
	679



Section of Broom Shop

Number of times prisoners have been in Central Prison.

1st	431
2nd	122
3rd	59
4th	22
5th	11
6th	5
7th	6
8th	6
9th	2
10th	1
12th	2
14th	2
15th	1
18th	1
19th	1
Uncertain	7
	679

Social Conditions.

Married	192
Single	487
	679

Education.

No education	73
Read only	14
Read and Write	592
	679

Ages.

Under 18 years	24
From 18 to 20 years	64
" 20 to 30 "	275
" 30 to 40 "	137
" 40 to 50 "	95
" 50 to 60 "	49
" 60 to 70 "	33
" 70 to 80 "	2
	679

Habits.

Abstainers	7
Temperate	189
Intemperate	483
	679

Nationalities.

Canada	455
England	74
Ireland	36
Scotland	20
U. S. of A	73
Germany	7
Italy	2
Russia	4
Hungary	1
Roumania	2
France	1
Sweden	1
Denmark	1
Austria	2
	679

Sentences.

One month	38
Two months	104
Three "	79
Four "	56
Five "	22
Six "	209
Seven "	5
Eight "	10
Nine "	22
Ten "	1
Eleven "	1
Twelve "	64
Thirteen "	3
Fifteen "	4
Sixteen "	2
Eighteen "	26
Twenty-two "	1
Twenty-three "	12
Twenty-four "	19
Forty-eight "	1
	679

Crimes.

Aggrvated assault	11
Abduction	2
Assault	35
Attempt to procure abortion	1
Arson	2
Attempt to wound	1
Attempt to steal	3
Attempted seduction	2
Attempt to kill a horse	1
Attempted suicide	1
Burglary	6
Ballot box stuffing	1
Bigamy	2
Defrauding	1
Drunk and disorderly	51
Desertion	4
Escape	4
Extortion	1
Forgery	8
False pretences	6
Fraud	1
House breaking	12
Horse stealing	6
Indecent assault	12
Interfering with police	1
Indecent exposure	9
Incendiarism	1
Inmate house of ill fame	4
Keeping disorderly house	5
Larceny	170
Non support of family	4
Obtaining money by false pretences	5
Perjury	3
Procuring	1
Receiving	6
Robbery	2
Shop breaking	17
Seduction	2
Stealing cattle	4
Selling liquor without a license	1
Shooting with intent	2
Theft	100

Woollen Mill

Crimes. Con.

Trespass	9
Threatening with intent	1
Using profane language	3
Vagrancy	140
Wilful damage	7
Wounding	8
	679

Occupations.

Agent	7
Butcher	9
Barber	9
Book-keeper	2
Blacksmith	6
Baker	3
Broom maker	1
Boiler maker	2
Bell boy	1
Brakeman	2
Bar tender	1
Boot black	1
Carpenter	13
Cigar maker	3
Clerk	12
Cabinet maker	2
Conductor	1
Commercial traveller	4
Cook	6
Carter	1
Cutler	1
Cab driver	1
Druggist	2
Electrician	6
Engineer	6
Farmer	18
Fisherman	1
File cutter	1
Fireman	6
Glass cutter	1
Groom	3
Gilder	1
Glass blower	2
Grinder	1
Harness maker	2
Hostler	2
Horse trainer	1
Hatter	2
Knitter	1
Laborer	367
Laster	1
Lithographer	1
Machinest	9
Merchant	4
Moulder	5
Mason	5
Medical Dr	1
Miner	3
Music teacher	1
Optician	1
Organ repairer	1
Pedler	5
Polisher	4
Paper Hanger	1
Plasterer	3
Photographer	4
Plumber	1
Porter	1
Painter	29
Shoemaker	17
Steamfitter	6
Sailor	7
Stone cutter	4
Teamster	11
Trunk maker	1
Tailor	25
Tinsmith	6
Waiter	7
Weaver	3
	679

Counties and Districts.

Algoma	22
Brant	21
Carleton	27
Essex	9
Elgin	11
Frontenac	3
Grey	3
Halton	2
Hastings	18
Haldimand	11
Huron	2
Kent	18
Lennox	4
Lincoln	9
Lanark	4
Leeds and Grenville	19
Lambton	16
Middlesex	22
Muskoka	4
Nipissing	10
Northumberland	5
Norfolk	1
Oxford	12
Perth	4
Peterborough	3
Peel	5
Penetanguishene Reformatory	2
Simcoe	17
Stormont	4
Victoria	5
Waterloo	11
Wellington	4
Wentworth	44
Welland	45
York	282
	679

Iron Machine Shop

Industrial Department.

Return shewing the number of days work rendered for the year commencing 1st October, 1901, and ending 30th September, 1902 :

Broom shop	13,886
North shop (wood working)	23,090
Woolen mill	3,306
Machine shop (including blacksmith and tinsmith)	8,301
Cordage mill	26,563
Garden and farm	1,124
Tailor shop	3,762
Shoe shop	1 405
Permanent improvements	1,254
	85,691

Domestic and Kitchen Department.

Return shewing number of days work rendered by domestics from 1st October, 1901, to 30th September, 1902 :

Prison domestics (cleaners, etc)	7,073
Kitchen (cooks, bakers, etc.)	3,240
	10 313

Return shewing the number of days prisoners were in Hospital, convalescent and under punishment from 1st October, 1901, to 30th September, 1902 ;

Hospital	764
Convalescent	579
Confined in cells under punishment	263
	1,606

General Summary of Distribution of Prisoners in the Central Prison from 1st October, 1901, to 30th Sept., 1902.

Industrial department	85,691
Domestics and kitchen department	10,313
Sick in hospital	764
Sick in cells	579
Under punishment	263
Sundays and holidays	20,890
	118,500

SURGEON'S REPORT.

James Noxon, Esq., Inspector of Prisons, etc.

Sir, I have much satisfaction in being able to report that the Central Prison has been practically exempt from any serious epidemics during the past year : that no machinery accidents have occurred involving results more serious than the loss of one or two fingers, and that the condition of the prisoners as regards their health has been very satisfactory. We had two deaths during the year, one the result of a fall from the second gallery and the other from tumor of the liver. I have at different times inspected the food and found it wholesome and well cooked.

Tailor Shop

In accordance with instructions I have vaccinated all prisoners on entrance when evidence of previous vaccination was not apparent.

I wish to acknowledge the care and painstaking of the hospital guard in all matters pertaing to the Hospital and Surgery, and to the staff generally for the uniform courtesy shewn me in the discharge of my duty.

I have the honor to be, Sir,

Your obedient Servant,

WM. SLOAN, M. D.,

Surgeon.

SYNOPSIS FROM THE ANNUAL REPORT ON PRISON GATE WORK FOR YEAR ENDING SEPTEMBER 30TH, 1902.

REPORT FOR THE PROVINCIAL GOVERNMENT, PROVINCE OF ONTARIO.

Number of men met and advised on day of discharge from prison	610
Number of men assisted on day of their discharge by temporary help or employment found them	449
Number of men professed conversion	148
Number of *War Crys* given away to men in prison	10,449

FREE LABOR BUREAU REPORT.

Temporary employment register	309
Permanent employment register	274
Ex-Prisoners	449
Total	1,032

FINANCIAL STATEMENT OF PRISON GATE WORK FOR YEAR ENDING SEPT. 30TH, 1902.

Income.		Expenditure.	
Grant from Provincial Government	$ 500 00	Salary	$ 400 00
Grant from City Council	300 00	Help rendered to men coming from prison and families of prisoners	1,415 58
Other donations	242 30		
(Deficit) Grants from Headquarters Funds	773 28		
Total	$1,815 58	Total	$1,815 58

While the above synopsis gives an outline of our work one of the points I would like to call your attention to is the Free Labor Bureau. Nothing has been received from any of the men placed in situations neither from the firms or individuals who have received help from the Free Labor Bureau. Many of the men applying to us have had to be assisted through our shelter until employment could be found for them. Our Free Labor Bureau is a splendid philanthrophy and will have in its grasp much to do with the social problem of the masses unemployed.

The appointment of Local Prison Sergeants at different cities, towns and villages of the Province who devote much of their time especially in the evenings procuring work for men coming from prison, also the taking a special interest in them, keeping them out of bad company, etc., has already proved a source of strength to our movement. The cordial help rendered by the prison officials has placed within our reach opportunities of helping men we could not otherwise have accomplished. We would make special mention of Warden Gilmour of the Central Prison, Warden Platt of the Kingston Penitentiary, Governor Van Zant of the Don Jail. These gentlemen in question have not

Shoe Shop

only interested themselves while men have been behind prison bars, but they have followed with deep interest our movement in taking hold of men from outside sources.

The financial statement is taken from the financial books of the Salvation Army, and all items of account are audited by public auditors.

Thanking you for past considerations.

I am, yours sincerely,

W. ARCHIBALD,

Major.

ONTARIO REFORMATORY FOR BOYS.

INTRODUCTORY.

The number of inmates confined at the beginning of the year October 1st, 1901, 141 there was committed from 34 counties of the Province 40 inmates, discharged 9, apprenticed out 4, pardoned 50, transferred to the Central Prison 2, escaped 4, the total number of inmates released from all causes for the year ending September 30th, 1902, 69, leaving the population on the latter date 112.

The following tables will furnish information showing the number of commitments made to the reformatory as well as those released by having served their full term of sentence, by being apprenticed out, by being transferred to the Central Prison, by being pardoned, and those who escaped. Of the escaped none have been recaptured and returned. The especially noticeable feature in the movements of population, is, that the number pardoned was twenty-five per cent. greater than the total number of commitments for the year.

THE SCHOOLS.

The school is in charge of two capable teachers and is making satisfactory progress. The discipline is good, the attention given to study is active, and with an evident desire for advancement. The teaching is of a specially practical character, as the conditions demand, being to those attending, the finishing school in the lives of most, if not of them all, and an apparent consciousness of this gives a sober earnestness to school work, which is reflected in the steady progress made. The teaching on the mental and moral side of life receives much attention, but on the industrial, and may say, the resourceful side is weak, and something should be done to bring it into greater activity. Not only for the advantage of the boys is this necessary, but it is likewise beneficial in maintaining discipline in the institution. The pressing and special need of the institution is, that a course of manual training be introduced and extended to a considerably wide range of handicraft, with classes in Sloyd, to make it practical and effective. Were this system pursued, the dormant abilities, and any special aptitude possessed by the boys, would be brought into exercise, and the training of whatever is found best in them, would supply an equipment, with which, on going out into the daily life of the world, they would do so with courage, and with confidence in their ability to maintain themselves in the industrial struggle awaiting them. It is to be remembered that of those sent out from this institution, the greater portion of them will return to the community in which they formerly lived, and will in their after life prove themselves either a useful or a hurtful member of it, that they will be a factor in government, have a part in shaping our laws, and exerting an influence for good or for evil in many directions.

The Farm, Garden and Grounds.

The farm has had the area under cultivation increased, and the crops yielded well. The potato crop however suffered heavily from the potato rot which has prevailed everywhere throughout the country. The garden has given a plentiful supply of its produce to meet the institutional needs, and the grounds have been maintained in excellent condition.

The several reports in connection with the work of the institution are herewith transmitted.

James Noxon.
Inspector.

ONTARIO REFORMATORY FOR BOYS.

The summary given below shows the operations of the Reformatory during the year as well as the two preceding ones.

	1900	1901	1902
Number in residence at beginning of year (1st October)	128	145	141
Admitted during year	66	63	40
Returned after escaping	....	....	....
Total number in residence	194	208	181
Discharged according to sentence	14	24	9
Apprenticed	5	3	4
Reprieved	24	38	50
Escaped	....	....	4
Transferred to Central Prison	5	1	2
" Orillia Asylum	1	....	....
Discharged on Judge's order	....	1	....
	49	67	69
In residence at close of year (30th Sept.)	145	141	112

Penetanguishene, Nov. 23rd, 1902

Sir,—Herewith I have the honor to submit my report for the year ending 30th September, with statistical tables appended. Enclosed also are the reports of the chaplins: of the district school inspector and those of the school teachers.

Remarks.

Twenty years ago, viz., 1882, the statistical tables forwarded with the report of that year, showed that there were in residence at end of official year 263 inmates. During these twenty years there has, year by year, been a gradual decrease in our resident population resulting as will be observed from this year's tables, in our now having considerably less than one-half viz. 112, in charge. A variety of causes tending towards such decrease may here be noted; one of these being the pleasing fact that juvenile delinquency has also, throughout the Province, been decreasing. Other reasons also for the large reduction in numbers emphasized are, the suspended sentence, and the establishment of the Industrial Schools, together with the somewhat extensive and comprehensive legislation underlying these institutions. Besides these, other movements, in character more than questionable, not to say unjustifiable, have been and still are in operation; but as these have—through other channels of communication—been

dealt with, we will not further disturb ourselves in this relation, except to deplore the fact that so far, apparently, no checks have been applied to the movements, etc., in question or, if so, these, in no manner, have proved to be as effective as would be desirable; still "Labor overcomes all things."

Again referring to the statistical tables for this year a pleasing feature in relation therewith is worthy of special notice, and that is the number pardoned and apprenticed out during the year; also the, proportionately small number held until expiration of sentence compelled discharge. The figure 9 represents the latter—54 the former; 50 of these being pardoned by the Executive—Federal or Provincial—4 being apprenticed. Whether apprenticed or pardoned, meritorious conduct and satisfactory progress throughout were the qualifications demanded of those so favored. Compare those figures with those of 1882. Our average population for that year, as already shown, was 263, yet 15 only of these were deemed worthy of recommendation as being fit subjects for the exercise of Executive clemency, just 6 per cent. of the number then in charge. Of course at that early day the milder system of discipline had not been in full operation: the initative steps towards its introduction being taken less than two years preceding.

Connected with the introduction of the paternal system above referred to, there were many disturbing causes calculated to produce disorder and militate against quiet progressiveness. These were consequent on the structural changes and the erection of additional buildings which the new system of discipline then made requisite. Whilst these changes and extensions were in process, many strangers, workmen, were within our gates and not a few of those required careful and continuous watchfulness in order that no underhand work in conjunction with the inmates should go on without check or hindrance. One man, a carpenter, was convicted of receiving tools from one of our boys and committed to Barrie jail. Besides these drawbacks towards progress in the earlier days there were others equally serious, and, in character, far reaching, hence difficult to have remedied. Regarding latter, reference is made to the guards and keepers, as then termed, composing, at that time, the staff; the majority of these owing to then existing environment being firm believers in the stern, exacting discipline, at this period, in vogue. They had more faith in the salutary effectiveness of the cat-o'nine tails and the dungeon than in the firm remonstrance accompanied by kind encouraging words, looks and actions. Pardon for first and unpremeditated offence was in their eyes madness and subversive of all authority. Prompt and condign punishment was their panacea for boyish waywardness. To have sought wholesale dismissal in connection with this state of affairs would have been unwise if not cruel and ill considered, hence it became our duty to bear ourselves patiently and to endeavor to eradicate from their minds, by precept and example their faith in the ruling of the iron hand. We were made happy at finding that a considerable number proved responsive to the teaching that the *judicious* pardoning of juvenile offenders, followed by firm, kindly advice and admonition was a more restraining influence and better reforming agent than corporal punishment or dungeon treatment. Of course now and again there were then extreme cases occurring demanding the old time drastic remedy in order to awaken the offenders to a lively and proper sense of their duty to themselves and to those also charged with their well being: these cases going to prove that revolutions, no matter how beneficient their object may be, will always have opposing forces requiring that the strong hand be, at times, in evidence and available. Have been led to these reflections in order to account for the low percentage of pardons in 1882 as compared with 1902 and also as a lead-up towards the giving of a descriptive outline of the in-

dustrial training to which the inmates were subjected in former year and in the two years immediately following the change in discipline above referred to. For some time before our appointment to present position the building now used as a recreation hall was devoted to the making of cigars; quite a number of the then inmates being farmed out to the contractor engaged in the manufacture of the soothing weed into that somewhat popular article of commerce. Beyond adverting to the fact that an inmate found using or having concealed about his person any portion of the leaf was subject to the lash will not further dwell on this not agreeable subject. A match making industry had been substituted after cigar contract had expired or been annulled. Excepting that the temptation to steal was not so great as in the handling of the tobacco leaf, yet the substitution was not much of an improvement, there still being inducements towards dishonest practices; not the least being the fact that a fixed number of match boxes had to be filled each day by those engaged in this work. To many of the lads the task was irksome and difficult to accomplish, hence stealing from other boys more deft and also from the room where the proceeds of the preceding days task had been stored, was rife, no matter how watchful were those in charge. This industry was neither healthful, attractive or, in any way usefully educational. Besides under agreement with the contractor a certain number of cases of matches had to be produced daily else damages would be claimed. This compelled that all connected therewith should be exacting taskmasters; hence the mild parental discipline presumed to be in continuous practice was thereby necessarily subverted. One other industry under contract was at same time in operation viz., the manufacture of broom handles and clothes-pegs. This also, owing to many causes not now necessary to particularize, proved to be the reverse of profitable, or in any way, of value from the standpoint of useful industrial training for the inmates engaged thereat and it was wisely decided that its operation should cease. Since then until now our industrial operations have been confined within the limits of our domestic requirements and as you are fully aware as to the extent and usefulness of these, further particulars respecting them are unnecessary.

But, hark! A spirit has been breathing over the waters of the stagnant 'Hownotodoit'; and we are encouraged, by present foreshadowings, to entertain the hope that the baneful influences of the waters so named and described will—through changes in their course and character—become so transformed, by the breathings of the spirit referred to, as to justify a change of name. This can be accomplished by simply withdrawing the negative syllable and through this simple process these waters will in future be known as the Howtodoit "A consummation devoutly to be wished for."

In conclusion will refer you to the reports of the Rev'd chap'ains in respect to the moral status of the inmates in their respective spiritual charge. Also to those of the school inspector and of the teachers respecting the mental progress during the past year.

Just a few words more. Have pleasure in conveying to you that our farming operations for the year, in respect to quantity and quality of products, have been of the most satisfactory character. Success in this relation is the more marked, through the past season, owing to its wetness, not being propitious generally. Yet to our rolling land with its sandy soil the unusual rain-fall was most acceptable.

I have the honor to be, Sir,
Your obedient servant,

JAMES NOXON, ESQ.,
Inspector of Prisons, etc.
Toronto.

THOMAS MCCROSSON,
Superintendent.

STATISTICAL TABLES.

Showing the operations of the Reformatory for the year ending 30th September, 1902:

In residence 1st October, 1901	141	
Admitted during the year	40	
		181
Discharged according to sentence	9	
Apprenticed out	4	
Pardoned	50	
Transferred to Central Prison	2	
Escaped	4	
		69
Remaining in residence, 30th September, 1902		112

Ages when committed.

3	at	12 years
5	at	13 "
11	at	14 "
11	at	15 "
8	at	16 "
1	at	17 "
1	at	18 "
40		

Periods of sentence.

1 year	5
2 years	7
3 "	5
5 "	2
1 year to 5 years	4
2 years to 5 years	2
3 " 5 "	1
2 " 4 "	1
Indefinite period not to exceed 5 years	13
Total	40

Crimes for which the 40 boys were convicted and sentenced to the Reformatory:

Arson	1	Incorrigible	3
Burglary, larceny and arson	3	Larceny	25
Conspiracy	1	Picking pockets	1
Forgery	1	Shopbreaking	1
Horse stealing	3		
Housebreaking	1	Total	40

Counties of the Province from which the 40 commitments were made during the year:

Algoma District	2	Northumberland and Durham	2
Brant	2	Waterloo	1
Carleton	5	Wentworth	3
Frontenac	2	Welland	1
Hastings	6	Wellington	1
Lennox and Addington	2	York	8
Middlesex	4		
Norfolk	1	Total	40

Counties of the Province from which the 112 boys now in residence originally came:

Algoma District	4	Norfolk	2
Brant	3	Northumberland and Durham	2
Bruce	2	Ontario	3
Carleton	11	Oxford	1
Essex	3	Peterborough	4
Frontenac	4	Prescott and Russell	1
Grey	2	Simcoe	1
Halton	1	Stormont, Dundas and Glengarry	2
Hastings	9	Thunder Bay	2
Huron	1	Victoria	2
Kent	2	Waterloo	3
Lanark	3	Welland	2
Lambton	2	Wellington	1
Leeds and Grenville	1	Wentworth	4
Lennox and Addington	4	York	13
Lincoln	3		
Middlesex	12	Total	112
Muskoka	2		

Number of commitments since Confederation :

Commitments.	Year.	Number	Number at close of year.	Commitments.	Year.	Number	Number at close of year.
Commitments in	1867	55	170	Commitments in	1885	51	220
"	1868	59	173	"	1886	64	205
"	1869	47	170	"	1887	60	192
"	1870	41	193	"	1888	71	193
"	1871	48	155	"	1889	85	210
"	1872	48	158	"	1890	63	210
"	1873	31	130	"	1891	65	185
"	1874	51	139	"	1892	67	168
"	1875	71	173	"	1893	62	173
"	1876	47	183	"	1894	51	152
"	1877	75	195	"	1895	57	147
"	1878	69	196	"	1896	55	145
"	1879	57	206	"	1897	37	123
"	1880	80	216	"	1898	52	125
"	1881	96	250	"	1899	63	128
"	1882	84	263	"	1900	66	145
"	1883	58	245	"	1901	63	141
"	1884	81	242	"	1902	40	112

The Province of Ontario in account with "The Ontario Reformatory for Boys," from October 1st, 1901, to September 30th, 1902.

Service.	Total expenditure for year ending September 30th, 1901.	Weekly cost per head.	Yearly cost per head.	Total expenditure for year ending September 30th, 1902.	Weekly cost per head.	Yearly cost per head.
	$ c.	$ c. m.	$ c.	$ c.	$ c. m.	$ c.
Medicines and medical comforts	42 08	6	31	47 30	7	39
Butchers' meat, fish, etc	843 61	11 6	6 03	740 19	11 7	6 02
Flour, bread, etc	1,766 77	24 3	12 64	1,316 01	20 7	10 70
Groceries and other provisions	417 12	5 7	2 96	350 07	5 5	2 84
Bedding, clothing and shoes	1,813 11	25 0	13 00	3,316 17	51 1	26 96
Fuel	5,095 10	70 0	36 40	562 96	8 9	4 58
Light and water	1,329 80	18 3	9 52	1,610 48	25 2	13 09
Laundry, soap and cleaning	165 30	2 3	1 20	291 55	4 5	2 37
Furniture and furnishings	495 18	6 8	3 54	352 63	5 6	2 87
Farm and garden	82 18	1 1	57	163 27	2 6	1 33
Feed and fodder	639 04	8 7	4 52	477 86	7 5	3 88
Repairs and alterations	375 55	5 2	2 70	428 49	6 8	3 48
Printing, postage, stationery and advertising	333 80	4 6	2 39	393 15	6 1	3 19
Chapels, schools and Library	186 38	2 6	1 35	206 06	3 2	1 67
Workshop, tools, etc	60 02	8	42	101 83	1 7	83
Recovering escaped boys	10 00	1	05	68 50	1 1	56
Rent allowance to guards	45 00	6	31			
Freight and express	130 77	1 7	88	87 95	1 4	72
Officers' travelling expenses	139 35	1 9	99	96 95	1 6	79
Miscellaneous	1,327 89	18 2	9 46	1,309 80	20 5	10 65
Salaries and wages	14,173 49	1 94 7	101 24	13,246 37	2 07 1	107 69
	29,471 54	4 04 8	210 48	25,167 59	3 93 5	204 61

Average number of inmates, 1901 140
" " " 1902 123

SCHOOL EXAMINATIONS.

ORILLIA, Oct. 18th, 1902.

SIR,—I have the honor to offer for your consideration, the Annual Report of my Inspection of the schools at the Reformatory for Boys, Penetanguishene. During the present year I visited the schools there twice, once in April and again in October. At both my visits I examined all the classes in most of the subjects usually taught. Of course I spent most of my time on the important subjects, such as arithmetic, composition, reading, spelling, writing and literature. I tried to find out not only what the boys were taught but how they were taught, the discipline, and order maintained. In fact I tried to find out whether they were being educated in an intelligent manner so that when they may leave the Institution they shall be equipped as well as under the circumstances they can be to meet the varied circumstances of life. I asked: "Are these boys being trained to control themselves better,—to control their desires, their passions, their bodies as well as their minds?" Unless they are, the school room life is nearly a failure.

At both my visits I left the building satisfied that the boys' time was not being lost. The same teachers are there now that were there last year, viz., Messrs. Wright and Lonergan. I believe these are two conscientious men who are doing their duty as well as they can and with very good success. Both of them are good scholars, the possessors of provincial certificates of high grade. Both have had long and varied experience as teachers.

With such teachers there, the boys that are capable of progress make progress just about as fast as children do in the public schools. In such subjects as writing, composition, spelling and literature, the results were quite satisfactory. In arithmetic the results were fair.

I am, Sir,
Your obedient servant,

ISAAC DAY, B.A.,
Inspector of Public Schools.

JAMES NOXON, ESQ.,
Inspector of Prisons, etc.,
Toronto.

ROMAN CATHOLIC SCHOOL MASTER'S REPORT.

PENETANGUISHENE, Oct. 1st., 1902.

SIR,—I have the honor to submit my second annual report of Catholic School for year ending September 30th, 1902.

During the year twenty were received and forty-one discharged. Out of those received thirteen were below the senior second, and out of the forty-one discharged only one was lower. In every case, those received had not been attending school immediately before being sent here. Hence we see that idleness is a precursor of crime.

The behavior of the boys in school is very good. Not one boy has refused to obey. When new boys start to school, it is only natural for them to imitate the example of the others attending; consequently when the conduct of those attending is good, it is not a hard task to have new comers do likewise.

The discipline exercised in the Institution trains a boy to do right. He becomes obedient and industrious. The neglect of cultivating these qualities outside leads a boy into trouble.

The Public School programme is closely followed here, but subjects which will be of the most practical use to them are given especial attention. Christian doctrine is taught to all.

The enclosed tabulated statement shows the attendance, changes, and position in classes during the year.

I have the honor to be, Sir,

Your obedient servant,

JAS. LONERGAN,
Catholic Teacher.

Statement showing number in each class September 30th, 1901, and same in classes September 30th, 1902.

	Number in each class September 30th, 1901.	Position in classes September 30th, 1902.							Went out.
		Junior first.	Senior first.	Junior second.	Senior second.	Junior third.	Senior third.	Fourth.	
Fourth	7								7
Senior third	15						1	3	11
Junior third	10						6		4
Senior second	10							1	9
Junior second	10				2	4			4
Part II	13		3		5				5
Part I	5		5						
Total	70		8		7	4	7	4	40

PROTESTANT SCHOOL MASTER'S REPORT.

ONTARIO REFORMATORY FOR BOYS,

PENETANGUISHENE, Oct. 22nd, 1902.

SIR,—I have the honor to submit my third annual report in connection with the Protestant School for the year ended Sept. 30th, 1902.

The year has been marked as one of progress in our school work. Since assuming my present position I have never had more encouraging results. It is gratifying to notice that the number of cases of punishment has been smaller than in any of the past three years.

The curriculum for Public Schools in Ontario is adhered to. General information, likely to be of use to the boys in after years, is imparted. The interest of the majority of the boys themselves take in their work is shown by their eagerness to learn and the attention which they pay. But the more I study our work, the more I am convinced, that, while a common school education is of great advantage to any boy, it does not supply all the elements of a successful reformative plan, and unless supplemented by faithful and prolonged industrial training no lasting benefit has been derived to the inmate committed to an institution of this kind.

The high standard of discipline of the Institution maintained from year to year is of invaluable assistance to the teacher in his work.

Your obedient servant,

MR. JAMES NOXON,
Inspector of Prisons, Toronto.

DAVID T. WRIGHT,
Protestant Teacher.

Statement showing the number in each class Oct. 1st, 1901, and the same in classes Sept. 30th, 1902.

	No. in each Class Oct. 1st, 1901.	Position in Classes Sept. 30th, 1902.							Went out.
		Jr. I.	Sr. I.	Jr. II.	Sr. II.	Jr. III.	Sr. III.	IV.	
Fourth	8							4	4
Senior Third	12						1	3	8
Junior Third	5							3	2
Senior Second									
Junior Second	24				9	6		1	8
Senior First	20		6	8	4				2
Junior First	2		2						
Total	71		8	8	13	6	1	11	24

ROMAN CATHOLIC CHAPLAIN'S REPORT.

PENETANGUISHENE, Nov. 23rd, 1902.

TO THE INSPECTOR OF THE ONTARIO REFORMATORY FOR BOYS.

SIR,—I have the honor to submit my report as Catholic Chaplain of the Ontario Reformatory for Boys for the year 1902.

I may say that as far as the routine of the work is concerned, it was regularly and faithfully performed; saying Mass for the boys on Sundays and holidays, giving religious instructions on Sunday afternoons, etc., etc.

I must give testimony to the boys that during Mass and any other religious service I have only praise to give them for their devout and attentive behavior. Both their spirit of faith and religion and the discipline under which they are trained make it easy for them to conduct themselves with decorum and reverence at the religious services, and even at religious instruction, outside of Mass, where more freedom is allowed, I have had no cause to send any of the boys for punishment.

I do not forget that the purpose of this Institution is the reformation of boys. Then, besides the duties mentioned above, I make it a practice to see the boys individually and collectively at other times and when they arrive and when their time expires, endeavoring to cooperate with the authorities more especially in charge of the Institution.

The boys are the better to have been here for a certain time, better for them than to have been left at large in the world. They are here under strict, thorough parternal discipline of order and obedience, there is method and rule in the way they are trained, and they cannot but contract good habits of life, and as the surveillance is constant and continuous, day and night, the possibility of contracting bad habits is reduced to a minimum.

I am satisfied that the boys are well disposed and that there is nothing to raise the cry of *Delenda est Carthogs* we have heard more than once in the press. I am sure that when they leave the Reformatory they purpose to lead a good and useful life, and I am satisfied that a large majority of them persevere in their purpose that they become useful and law-abiding citizens of this or any country, and I am satisfied they can compare not unfavorably with any boys of the same class.

I, as Catholic Chaplain, resent the denunciations made this year in the press by certain individuals as unjust, not founded on facts by men who have no opportunity to know, is it perhaps, as it was mentioned in some interview in some paper, because the head of this Institution being a Catholic there is fear of

undue influence towards non-Catholic boys. This could not be done without my being a party to it, and I denounce it as a vile, slanderous insinuation. If such apprehension exists or is pretended to exist in the minds of a certain class of people the men that denounce the Reformatory should be, and I am sure, are above this.

Be this as it may, I will continue to do my duty towards the boys under my charge, and I hope and trust that, though they may not be saints they may compare favorably with any class of boys that had a better opportunity.

I have the honor to be, Sir,
Your obedient servant,
TH. F. LABOUREAU,
Catholic Chaplain.

PROTESTANT CHAPLAIN'S REPORT.

PENETANGUISHENE, November 23rd, 1902.

TO THE SUPERINTENDENT OF THE ONTARIO REFORMATORY FOR BOYS.

DEAR SIR,—I have pleasure in presenting you with my annual report, as the Protestant Chaplain of this Institution, for the year ending September 30th, 1902.

I am glad to be able to say that in my work as the overseer of the moral and religious interests of the boys under my charge, this has been the most satisfactory of any year of my Chaplaincy—during the year over forty boys, of their own accord and unsolicited by me, have come to me asking for special religious instructions, and I have now two large classes with whom I meet weekly to give them instruction and encouragement in religious life. I believe them to be as sincere as the same number of boys gathered anywhere would be. Of course they are young, and exposed to temptations as all are, nevertheless I fully believe that this class training will be of lasting benefit to them. I am the more hopeful because on their part their stand is purely voluntary. There is no excitment about it. Surely God's blessing is with us. Of the other boys I have no fault to find. Some of them are wild and mischievous, a few are bad, but on the whole they are attentive, usually, in religious services, and often seem deeply interested.

Notwithstanding the untrue and unkind things that a few people, who are ignorant of our work, and without experience in handling juvenile criminals, say about this Reformatory fully possessed of the facts as to its management, and discipline as I am and familiar with the course pursued by those who leave here. I *know*, that it is doing a grand work. Fully seventy-five per cent of those who are discharged go out and live law abiding, consistent, and often Christian lives. Those who fall back into crime after leaving here, are gathered out of this twenty-five per cent, on whom we do not count, but were we to parade in public addresses and in the press, the names and doings of this honored class of seventy-five per cent of our boys who are doing well, in various parts of our Dominion. in the U. S. and even in England, and South Africa, our critics would have a poor showing. But we are content to do our work faithfully, and let them harp away.

Take into account the families that most of our boys come from, and the results of our work are, to say the least exceedingly creditable.

Sincerely Yours,
S. CARD,
Protestant Chaplain.

SURGEON'S REPORT.

PENETANGUISHENE, Oct. 1st, 1902.

SIR,—In submitting the Medical Report of the Ontario Reformatory for Boys for the year ending Sept. 30th, 1902, I am glad to be able to say that we have had no deaths during the year, and that the health of the boys has been as good as could be expected.

Although we have the ordinary amount of sickness we have had no contagious diseases, except measles and chicken-pox, and this is the fifth year without a death in the Institution.

Measles was brought in by one of the new boys and during the months of February and March we had fourteen cases before the disease was under control. During the months of April and May we had a number of cases of chicken-pox.

We had four cases of rheumatism and one of appendicitis and all made good recoveries.

The other cases of sickness consisted of la grippe, quinsy, sore throats and colds, with the ordinary number of sprains, etc.

It was during the spring and fall months that most cases of la grippe and sore throats occurred, but by being placed at once in the Hospital they were soon attending to their work again.

Small-pox broke out in the two adjoining townships but the boys have been vaccinated when required.

The boys are looking well and strong, and go about their work and play in a manner that shows that they take an interest in the one and fully enjoy the other.

I have the honor to be, Sir,

Your obedient servant,

JAMES NOXON, Esq.,
Inspector.

P. H. SPOHN,
Surgeon.

ANDREW MERCER ONTARIO REFORMATORY FOR FEMALES.

Introductory.

The committments during the year were 117 as against 130 the previous year. The number in custody at the beginning of the year was 60 and with the committments including 4 transferred from the Refuge for Girls, the total in custody during the year was 181. There was discharged during the year 104, two of the number being paroled, one on payment of fine and one pardoned, transferred to public hospital one, to insane Asylum 3, to the Refuge for Girls 2, returned to gaol as unfit for work 2, and 69 remained in cusody at end of year.

Of the total number committed 87 were sentenced direct, 34 were committed to and transferred from county gaols, and as regards social condition 54 were married, 20 widowed, and 47 single, 47 were temperate, 74 intemperate, 70 could read and write, 31 read only, and 20 were illiterate.

The ages were, 10 under eighteen years: 9 between eighteen and twenty: 38 between twenty and thirty; 33 between thirty and forty: 18 between forty and fifty: 8 between fifty and sixty, and five were over sixty years of age.

The number of girls in Refuge for Girls at the beginning of the year October 1st, 1901, was 75, sentenced direct during the year 21, transferred from Reformatory 3, and the total number in custody during the year was 99. Of the total number 11 were discharged by expiration of sentence, 10 by remission of remainder of sentence, 4 were transferred to the Reformatory, 1 was apprenticed out and 1 was transferred to the department of Dependent and Neglected Children, leaving 72 remaining at close of year September 30, 1902. Of the total number admitted 22 could read and write and 2 were illiterate.

The combined daily average population of the Reformatory and Refuge was 141 as against 136 the preceding year.

The renewal of plumbing to improve sanitary conditions throughout the institution has been completed, but much remains to be done to reconstruct and to refurnish the laundries and work rooms and to equip with more modern furnishings, replacing that now mostly worn out, and obsolete, and this should be carried out the coming year. Laundrying is the chief industry carried on at the institution, and the existing sanitary conditions under which this has to be done, are such, that the health of all engaged in it, both attendants and inmates, suffer severely from it. Further improvements are also necessary for the more complete classification of inmates, and for the isolation of those amongst them who are uncontrollable by ordinary methods of correction and to prevent the subversion of order and discipline. Attention is given to the industrial employment of inmates, not specially on account of the intrinsic advantage in point of greater revenue, although this is certain to follow, but as being conducive to good order and introversion of mind favorable to the reception and growth of reformatory influence, and to the improvement of discipline.

James Noxon,
Inspector.

James Noxon, Esq.,
Inspector of Prisons.

Sir:—I have the honor to submit the twenty-second annual report of the Andrew Mercer Ontario Reformatory for Females, for the year ending September 30th, 1902.

Cell Corridor.

In the classified tables annexed will be found the figures showing the number of inmates committed, their social condition, class of crime and length of sentence, while other tables set out the methods of employing the women, the amount of work done by them, and the profit resulting therefrom.

I would respectfully beg to draw your attention to the average length of sentences given; to the kinds of employment provided, the character of the women's surroundings, and incidentally the profit of their work.

First—The average length of sentence—Six months and twenty-eight days is the average length of sentence of a woman committed to this institution for reformatory treatment. Consider in conjunction with this that two-fifths of the committals are for drunkenness, or drunk and disorderly. It is submitted that the task of reforming under these circumstances must be well-nigh hopeless. Yet another consideration: Of the 121 females committed during the past year only 53 were sent for the first time. One was committed for the seventeenth time, under sentences varying from 30 days to 6 months. She is now but 38 years of age. Her committals, as you will perceive show a rapid descent from vagrancy to prostitution. Within these extremes we have 22 women sent for the second time; 17 for the third; 8 for the fourth; 3 for the fifth; 2 for the sixth; 4 for the seventh; 3 for the eighth; 4 for the ninth; 3 for the tenth and one for the thirteenth time. The interests of reformation would appear to have been better served had it been possible to commit these women on their first offence for longer periods. It could scarcely fail to prove a deterrent did each fear that a second committment would mean a yet longer period of confinement, and a third a still more prolonged period of incarceration for such habitual offender. The offender who is returned again and again is evidently not a fit person to be allowed full liberty. An indeterminate sentence, with a good system of probation, would, there is good reason to believe, benefit the cause of reform in this province as it is claimed to have done in other countries where that system has been tried.

The classification of our inmates has been very much discussed and were the average sentence for a longer term, would certainly be most desirable in the interest of the inmates themselves as well as in that of discipline. Until, however, certain required and important structural changes can be made in the building and provision for securing an increased staff of attendants be made, no complete system of classification can possibly be adopted. The best substitute is the careful supervision of the women at all times, the adoption of a general rule of silence that there may be no opportunity for "gossipping," or recalling events better forgotten, no chance for the instructing of those less hardened in vice by older offenders, or the luring of young women to ways of vice by the keepers of improper houses.

In the last report of the Sherborn (Mass.) Reformatory Prison for Women—the model institution of the United States—the very capable superintendent, Mrs. Morton, states: "The abolishing of the daily recreation has passed the experimental stage and is recognized even by returned women as of great benefit. I am convinced it simplifies the management of dealing with the prisoners."

I hope to be able soon to do away with our last recreation. I am postponing the date only until I can replace it with some system of relaxation for the women which may be improving.

Means of Employment.

All sentences to the Andrew Mercer Reformatory read "with hard labor." It is universally admitted that the greatest help in improving the condition of those committed to any reformatory or prison is labor. Equally true is it that the labor should be profitable. It should be surely the aim of this institution to

Kitchen and Bakery.

help every inmate to acquire, not only habits of cleanliness and order, but also to attain such domestic skill as may enable her to obtain an honest living when restored to liberty. With the means at our command, ordinary housework occupies many, and cooking a limited number. The labor of some of the women has also been made available by me during the past year, in whitewashing and painting the interior of the prison and with satisfactory results. The women themselves appeared to take a personal interest in this work. The ceiling and woodwork, the furnishings and such walls of five wide corridors containing from 12 to 16 cells as were not whitewashed were painted. The whitewashing throughout the building including the laundries was renewed: the workroom, scullery and dining-room including tables were painted. The walls, ceiling, furniture, etc., of five of the attendants' rooms were decorated. The entire basement was painted and whitewashed including both staff and inmates' kitchens, meat-house, boiler-room, etc. In fact the grimy and faded walls of the prison interior were transformed into bright and attractive surroundings. The labor expended in doing all this was considerable and is worth hundreds of dollars to the institution. A small garden in the airing yard was also tended by the women. I propose to continue the work in this direction, and to increase the garden plot and improve the appearance of the airing yard generally.

Other necessary alterations in the administrative portion of the building, which could not be done by prison labor, were necessarily items of expense for such work as had to be done by outside skilled labor. Some of the alterations were required to ensure the safety of the prison, as there existed doors of communication between the officers' apartments and the prison. These were all bricked up and added considerably to the expense by making redecoration a necessity. The removal of the dry goods store-room to another part of the building and the refitting of same: the decorating and furnishing of the new staff dining-room supplying a dumb waiter, etc., all of this added to the expense. The adoption of the practice prevailing in all other government institutions, of a table allowance for the superintendent necessitated the providing of a kitchen and dining-room, the appointments of which are yet to be completed.

The plumbing of the institution in both Reformatory and Refuge was put into a thoroughly sanitary condition, an entirely new set of stacks being found necessary. The old fixtures which had been placed in the centre of the building were removed, and the new system installed in such manner as to secure outside ventilation. Much needed lavatories were provided for the staff, and both hospital and nursery equipped with up-to-date conveniences. The painting of all partitions and all lavatories, etc., was done most satisfactorily by the women.

The chief employment for our women, however, is laundry work. Unfortunately our facilities for the purpose are too limited to permit the acceptance of all the work of this character that could be obtained. Many desired improvements in the laundry are absolutely necessary for the health of those working there and their instructors, and these structural changes and fittings I would most earnestly urge upon your immediate attention.

Besides the grave necessity for such changes from a sanitary standpoint, the means of supervision of the women would be infinitely better, a larger amount of work could be accomplished, and considerable space would be economized which might be devoted to the proper isolation of newcomers, or of those not amenable to discipline, and for whom at present we have no suitable place of confinement.

Sewing and knitting, both by machine and hand, are most suitable employments for the inmates—the fashioning of underclothing for ladies and children, and the making of all kinds of children's clothing would be a most desirable industry. These latter could, I am well satisfied, be carried on

Laundry.

successfully were the necessary sewing machines and a couple of knitting machines supplied. It would be necessary, too, to appoint an additional instructor. At present we have in the sewing room thirty-three women—all under one attendant. This attendant in charge has not only to maintain discipline, but also to prepare the work for each person, see that the work is properly done, and be vigilant in seeing that all are constantly employed. All articles from the wash have also to be carefully looked over by her, and carefully mended under her instruction.

When it is remembered that the majority of these women are unwilling to work, that they must be constantly watched to prevent their shirking the work, that the many have never known or been taught what it was to be useful, it will be evident that the duties are altogether too many to be well-performed by one attendant, and that from economic motives even it would pay to employ additional help.

I have spoken of the profit of the work of the women. Hand labor by preference is used entirely; yet our laundry makes a fair showing. Had we conveniently arranged wash houses, suitable wringers and drying kilns and an up-to-date mangle we could accomplish double the amount of work. With proper equipment in laundry and sewing room a fair income would be assured. As matters stand now with but two sewing machines, and both of these time-worn, and all knitting done by hand, we cannot look for large returns from the workroom, neither can the work be made as interesting, nor as useful for those whom we are striving to make wage-earners.

The spiritual welfare of the women has been carefully attended to—religious services being held twice on Sundays and three times during the week.

The Prisoners' Aid Association generously provided us with a teacher for four evenings each week during the school year. The school is greatly appreciated by the women and is largely attended both by the illiterate and those already possessing some knowledge of reading and writing. Good work is being done and the satisfactory showing should be a help in the work of reformation.

There is much difficulty in securing suitable situations for discharged prisoners. For the discharged inmate who is sent back among her old companions there is invariably but small hope of permanent improvement. When we can get one a place removed from the old haunts there is always a fair chance of the girl doing well. It is the discharged prisoner who needs to be looked after—those within the prison are being carefully trained to cleanly and useful habits, and have more attention and actual comforts than the honest and deserving poor.

The carpenter's shop was moved during the past year from the main building to a portion of the stable now devoted to repairing.

A good crop of vegetables was grown in the garden, the table being supplied with early vegetables in abundance. The grounds have also been carefully looked after and an excellent showing made for the money expended.

The population of the Reformatory has been steadily increasing, and it will be necessary to supply our store-rooms more liberally.

I desire to mention my appreciation of the unsparing efforts and devotion of the staff to the interests of the institution. The hours of labor are long, the strain exacting and the remuneration not as large as could be wished for.

Some changes have taken place in the staff: The capable Secretary, Mrs. Kavanagh, for so long identified with this institution, resigned her position in December, 1901, greatly to my regret and that of the staff. Chief Engineer Rankin, who had grown old in the service of the institution, has retired and is succeeded by Assistant Engineer Kelly. Mr. J. Lang has succeeded to Mr.

Catholic Chapel

Kelly's position. Miss Evans, for many years a valued member of the staff, retired in the beginning of the year.

Much valuable information was acquired by me while in attendance during the past year at the National Convention of Charities and Correction at Detroit, and the Canadian Convention of Charities and Correction at Hamilton. I am sure Miss Elliott, Principal of the Refuge for Girls' branch of the Reformatory, who likewise attended these conventions, will bear testimony with me to the value of these assemblies. It was my privilege at the Hamilton convention to draw attention to the subject of "Some Reformatory Needs." I should also mention in this connection my visit to the National Prison Congress, held at Philadelphia, at which the wardens and superintendents of penal and corrective institutions meet annually for the interchange of opinion and mutual information and at which I was pleased to find yourself and Mr. Warden Gilmour taking a prominent part.

I feel it my duty to thank the Department for the privilege I enjoyed of visiting United States institutions, similar in character to the Andrew Mercer Reformatory, during the past year. I found these institutions working under different systems, greatly favored by the long sentence, or by indeterminate sentences, and well equipped for teaching, in addition to housework, cooking, laundrying, hand-sewing, weaving, dairying, gardening, shirt-making, etc. They possess also the advantages of situation in a locality not in too close proximity to a large city. The discipline is excellent, the system of commutation of sentence for good conduct and the indeterminate sentence simplifying greatly the government of the institution.

I am striving to put in practice such points in prison discipline and management as I found commendable and adapted to our system. I must admit that I found the American institutions object lessons in penology, and feel greatly indebted to the different superintendents for their generous hospitality, the interest shown in my work, and the facilities afforded me for seeing and acquiring useful information in every department of their institutions.

A personal visit and examination was the best, in fact, the only means of acquiring the information which I expect to be productive of so much practical good hereafter. I should also, if permissible, ask to bear testimony to the great assistance afforded me by yourself, Sir, when I was honored by your company in the inspection of Sherborn Prison near Boston, Mass.

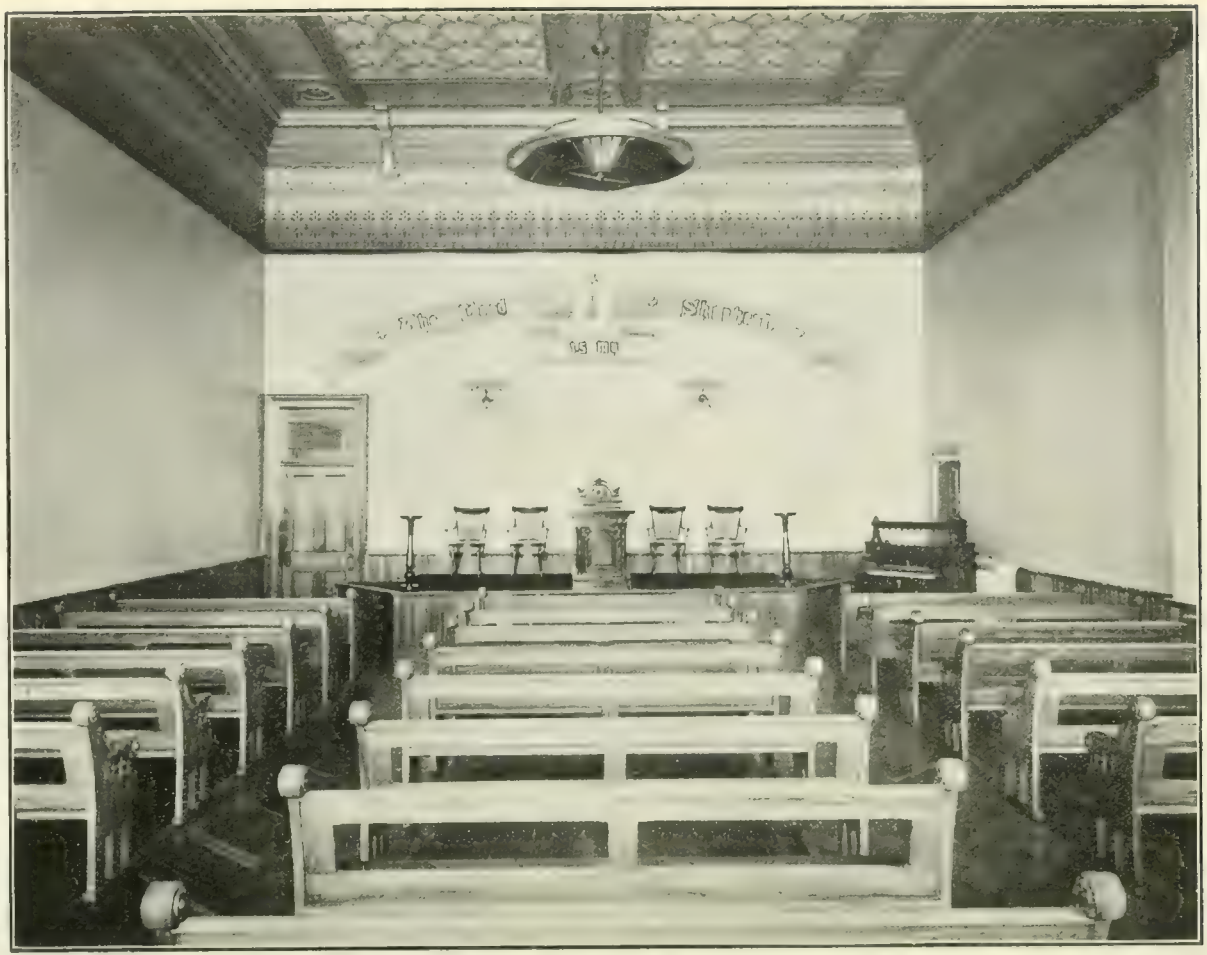
Before closing, I would respectfully beg to add a word regarding a class termed "incapable" in our books. A reformatory seems scarcely the right place for such women. Their presence is not conducive to good discipline, and, alas! when their sentences terminate and they are without the protecting walls of the prison, it too often follows that they become the mothers of offspring yet more helpless and incapable than themselves.

I have the honor to be,
Sir,
Your obedient servant,

EMMA O'SULLIVAN,
Superintendent.

REFORMATORY.

	1901	1902
Number of inmates at beginning of year	58	60
" " since admitted	130	117
" " transferred from Refuge		4
	188	181



Protestant Chapel.

REFORMATORY.—*Con.*

	1901	1902
Discharged on expiration of sentence	112	100
" by order of His Excellency the Governor-General	...	1
" on payment of fine	11	1
" on parole	...	2
Transferred to General Hospital, Toronto	....	1
" St. Michael's Hospital, Toronto	2	...
" Toronto Asylum	1	1
" Mimico Asylum	....	2
" Toronto Gaol unfit for work	...	2
" Refuge for Girls	...	2
	128	112
In custody at close of year (30th September)	60	69

INDUSTRIAL DEPARTMENT.

The operations of this department are shown in the subjoined statement.

Laundry Department.

Number of days worked, 3 364.

Total revenue	$1,622 71	
Less cost of fuel, water, soap, soda, etc	500 00	
Net revenue		$1,122 71

Daily earnings from net revenue, 33 cents.

Sewing Department.

Number of days worked, 151,

Total revenue	19 00	
Net revenue		$19 00

Daily earnings from net revenue, 12 cents.

Knitting Department.

Number of days worked, 606.

Total revenue	$22 93	
Less needles	50	
Net revenue		$22 43
Daily earnings from net revenue, 4 cents.		
Casual revenue		53 23
Clothing given to inmates leaving		356 89
		1,574 26
Making clothing, laundrying, knitting, baking, cooking, housework for the Institution, 11,464 days, 25c		2,866 00
Total revenue		$4,440 26

Gross and net revenue of different departments—

	Gross	Net.
Laundry	$1,622 71	$1,122 71
Sewing	19 00	19 00
Knitting	22 93	22 43
	$1,664 64	$1,164 14
Casual revenue		53 23
Clothing given to inmates leaving		356 89
Making clothing, etc		2,866 00
		$4,440 26

ANDREW MERCER ONTARIO REFORMATORY FOR FEMALES AND REFUGE FOR GIRLS.

STATEMENT OF MAINTENANCE EXPENDITURE FROM 1st OCTOBER, 1901, TO 30th SEPTEMBER, 1902.

	Total expenditure for year ending September 30th, 1901.	Weekly cost per head.	Yearly cost per head.	Total expenditure for year ending September 30th, 1902.	Weekly cost per head	Yearly cost per head.
	$ c.	c. m.	$ c.	$ c.	c. m.	$ c.
Medicines and medical comforts	154 89	2 17	1 13	108 57	1 48	78
Meat and fish	1,424 66	20 00	10 48	1,516 35	20 68	10 77
Flour, bread and meal	874 86	12 36	6 43	920 53	12 56	6 55
Butter	589 96	8 32	4 35	837 15	11 43	5 96
Groceries	1,299 84	18 36	9 57	1,812 29	24 72	12 87
Potatoes and vegetables	162 34	2 28	1 21	259 22	3 54	1 86
Bedding, clothing and shoes	2,033 94	28 75	14 96	1,947 16	26 53	13 82
Fuel	1,540 89	21 78	11 33	1,720 51	23 46	12 21
Gas, oil, candles and matches	806 66	11 40	5 93	933 37	12 72	6 35
Laundry and cleaning appliances	440 35	6 52	3 22	625 42	8 52	4 45
Stationery, printing, postage and advertising	263 68	3 71	1 95	430 69	5 87	3 07
Library, schools and religious services	476 74	6 75	3 51	510 71	6 96	3 63
Furniture and furnishings	529 64	7 34	3 82	689 85	9 42	4 90
Grounds and garden	565 05	7 98	4 16	604 57	8 23	4 31
Fuel and fodder	591 94	8 36	4 36	459 67	6 28	3 27
Repairs and alterations	604 39	8 53	4 45	662 43	8 97	4 68
Unenumerated	764 94	10 80	5 63	664 99	9 04	4 73
Water supply	476 26	6 73	3 51	748 16	10 32	5 32
Stable furnishings	264 62	3 73	1 95	144 68	1 97	1 04
Salaries and wages	11,963 68	167 23	87 97	12,148 18	165 68	86 19
Total maintenance expenditure	25,829 33	365 23	189 92	27,744 25	378 38	196 76
Manufacturing operations	802 57			1,034 45		
	26,631 90			28,778 95		

Number of days—	1901.	1902.
Reformatory	22,606	23,640
Infants	639	1,576
Refuge for Girls	26,285	26,511
	49,530	51,727
Average number of inmates	126	141

ANNUAL STATISTICAL REPORT OF THE ANDREW MERCER ONTARIO REFORMATORY, FOR THE YEAR ENDING SEPTEMBER 30th, 1902.

Number of Inmates on October 1st, 1901	60
" " since received	121
	181

ANNUAL STATISTICAL REPORT.—*Con.*

Discharged by expiration of sentence	100
" " order of His Excellency the Governor-General	1
" on parole	2
" " payment of fine	1
Transferred to Toronto General Hospital	1
" " " Asylum	1
" " Mimico "	2
" " Refuge for Girls Dept	2
Returned to Toronto Gaol	2
Remaining in custody September 30th, 1902	69
	—181

Nature of Sentences.

Sentenced direct to the Reformatory	87	
" to common gaols	34	
		— 121

Social Condition.

Married	54	
Single	47	
Widowed	20	
		— 121

Temperate or Intemperate.

Temperate	47	
Intemperate	74	
		— 121

Education.

Read and write	70	
Read only	31	
No education	20	
		— 121

Ages.

Under 18 years	10	
From 18 years to 20	9	
" 20 " " 30	38	
" 30 " " 40	33	
" 40 " " 50	18	
" 50 " " 60	8	
Over 60 "	5	
		121

Occupations.

Charwoman	17	Nursemaid	2
Cook	1	Peddler	1
Domestics	56	Seamstress	3
Factory girl	1	Tailoress	2
Housekeepers	23	Waitress	2
Laundress	5		— 121
No occupation	8		

Crimes.

Abandoning infant	2	Keeping house of ill-fame	11
Disorderly	3	Larceny	12
Disorderly and vagrancy	5	Loose, idle person	5
Drunkenness	34	Loose, idle and disorderly	1
Drunkenness and disorderly	6	Perjury	1
Drunkenness and theft	1	Prostitution	7
Frequenting disorderly house	2	Theft and receiving	2
Inmate of disorderly house	2	Vagrancy	17
Inmate of house of ill-fame	8	Vagrancy and prostitution	2
Inmate of house of ill-fame and larceny	1		121
Keeping disorderly house	2		

Sentences.

For 50 days	3	For 18 months	1
" 60 days	5	" 20 "	1
" 3 months	3	" 21 "	1
" 4 "	2	" 1 year and 360 days	2
" 5 "	1	" 1 " " 364 "	3
" 6 "	86	" 2 years	1
" 8 "	1		— 121
" 12 "	11		

Counties from which Inmates were received.

Counties.	Sentenced direct to Reformatory.	Sentenced to Common Gaols and transferred to Reformatory.	Total.
Brant	1	.....	1
Carleton	1	11	12
Frontenac	2	.....	2
Grey	3	.....	3
Hastings	3	1	4
Kent	6	.....	6
Lambton	2	.....	2
Lanark	.....	2	2
Leeds and Grenville	6	1	7
Lennox and Addington	1	.....	1
Lincoln	3	.....	3
Middlesex	3	.....	3
Muskoka District	.....	1	1
Northumberland and Durham	.....	1	1
Oxford	1	.....	1
Perth	1	.....	1
Simcoe	2	.....	2
Wellington	1	.....	1
Wentworth	7	1	8
York	44	16	60
Totals	87	34	121

NUMBER OF DAYS' WORK DONE BY INMATES DURING THE YEAR.

Industrial Department.

Knitting to fill orders	606 days
Laundry (city)	3,364 "
Sewing to fill orders	151 "
	4,121 days

Domestic Labor.

Cooking, baking and dining room	2,915 days
Cleaning	3,423 days
Laundry (inmates and staff)	2,472 "
Learning to wash and iron	967 "
Sewing and mending for Ref'ty	1,122 "
Learning to sew	927 "
Knitting for Ref'ty	1,178 "
Nursery and Hospital	354 "
	13,358 days

WORK ACCOMPLISHED BY INMATES DURING YEAR.

Laundry Department.

Number of articles laundried	129,577

Sewing Department.

Number of articles manufactured	2,102
" " repaired	1,811

Knitting Department.

Number of articles knitted	606
" " repaired	1,129

REPORT OF THE SURGEON.

TORONTO, 1st Oct., 1902.

JAMES NOXON, ESQ.,
Inspector.

SIR,—I have the honor of herewith submitting my twenty-second annual report, as Surgeon of the Andrew Mercer Ontario Reformatory for Females, and the Industrial Refuge for Girls, for the year ending 30th September, 1902.

THE REFORMATORY FOR FEMALES.

I am pleased to be able to report that another year has closed without a death, or any very serious illness in any department of the institution whether official staff, Reformatory, Refuge or Nursery inmates.

Among the admissions during the year were six or seven women of unsound mind, three of whom were wholly unfitted for work or amenable to discipline, and required constant watching and eventually were admitted to asylums.

Two cases were admitted in an advanced stage of pregnancy, and several others were unable for more than very light work on account of disease or debility.

Two inmates were transferred to hospitals for operative treatment, one for appendicitis, near the termination of her sentence, and the other for removal of cancer. The latter was brought back after the operation and is still serving the term of her sentence.

The number of incapables who should be sent to insane asylums, hospitals and homes for the aged, rather than to a reformatory, appears to gradually increase rather than decrease from year to year.

There was less severe sickness than for many years past among the inmates.

The various improvements connected with the plumbing system throughout the building including changed positions of lavatories and improved drainage and ventilation has enhanced the health of all in the building.

As a means of preventing the introduction of smallpox or other contagion into the building through inmates coming from infected sections of the Province the precaution was inaugurated of disinfecting the clothing left off the inmates, and vaccinating those not vaccinated recently, with the result that no single case of contagious disease developed during the year.

The syphilitic inmates are on arrival consigned as in all previous years to the Isolation or Specific ward, where they are kept at work and live entirely separate from other inmates so long as they are under treatment.

No complaints were made to me during the year regarding food or clothing, and with the view of preventing ground for complaint at being kept at the heavy work all the time, change of work was given for limited periods with satisfactory results. In the assignment of work to inmates their health and physical condition are always considered.

The carpenter received leave of absence for an extended period on account of rapidly failing health and resumed his duties much improved as a result.

THE REFORMATORY HOSPITAL.

Five inmates occupied the hospital during a portion of the year. The hospital record was unusually light. Two cases were childbirth. One boy baby was born in January and one in May. The time spent by the mothers in the hospital was 25 and 18 days respectively. The remaining cases were one of caries for 26 days, and one of rheumatism for 25 days, and one of nervousness 2 days.

The Reformatory and Refuge Staff.

The health of the staff was exceptionally good the past year, with a single exception referred to elsewhere.

The Syphilitic Ward Cases.

The number of isolated inmates in this department under treatment the past year was 9. The year opened with four inmates who had spent some time the preceding year, and one whose total previous treatment extended over a period of one year and 103 days. One of the 10 occupying the ward left by expiry of sentence and was recommitted, leaving the actual number of individuals treated at 9. Of the total only 3 were discharged cured, the other 6 leaving on account of expiration of sentence. The largest number under treatment at one time was 6. The smallest number was 2, while the last month of the year the ward was empty. The time each of the 9 was under treatment the past year was:—1, 328 days; 2, 258 days; 3, 213 days; 4, 178 days; 5, 171 days; 6, 158 days; 7, 37 days; 8, 2 days; 9, 2 days.

Industrial Refuge for Girls.

The general health of the staff and inmates of the Refuge has been excellent, but few cases requiring to take to bed. An exception to the above existed in two cases of consumption which were removed, one girl dying at her home a few weeks after being liberated, and the other transferred to the care of friends in a hospital, was still under treatment at the close of the year.

I have the honor to be, Sir,

Your obedient servant,

John S. King, M.D.,

Surgeon.

REFUGE FOR GIRLS.

Introductory.

The course of training pursued in the Refuge for Girls is reflected in the appearance of greater brightness and intelligence of the inmates, and in the practical and methodical manner in which they perform the duties assigned to them. In the school of letters distinct and creditable progress has been made, and the same may be said as to all classes in domestic science in which they are taught the things which they will need to put in practice in their future lives. It is the aim to teach them, that if a girl marries, she will be capable of keeping a good home for her husband, and therefore they are taught by actual experience the care of such a house as she will be apt to live in. To be able to do this she is taught how to cook for a small family, the best method of laundry work, to care for flowers, small fruits, and as room is provided the care of a small kitchen garden. She is taught also how to preserve fruit and vegetables, that she may, having the opportunity, add to the income of her family. In addition to all she is taught the care of all household apartments and the special duties pertaining to them. This work however has been carried on under many adverse and trying conditions. The surrounding environment of the institution is bad. Within a few hundred feet of its walls, are on the two sides a base ball and other amusement grounds, while on other two sides at an equally short distance are large factories overlooking the grounds, and where large numbers of work people are employed. It is difficult to conceive of a situation worse, than it, in which

kitchen.

to undertake the reformation of young girls just entering on womanhood. The pity of it is, the situation admits of no prospect of being improved, but tends rather to become more and more objectionable. During the summer and autumn months when out door games are in full swing, the minds of the inmates are kept in a state of excitement, and their attention distracted from their duties, by the shouting and boisterous merriment within distinct hearing, around them. It is even difficult to give the inmates sufficient open air recreation to maintain them in health, and to afford them occupation, and instruction in kitchen gardening is likewise made difficult and inconvenient. The Refuge is owing to its construction necessarily conducted on the congregate system, which is not favorable to secure the highest good. Under it there is much to be desired that it is impossible to accomplish in the way of creating home life and feeling, which is the best influence for securing real and permanent reform for wayward girls. The cottage system with the family home life established in each cottage under discreet and well qualified teachers, and with not more than twenty in the family, is the approved modern plan in carrying on reformatory work. An institution of this class is an urgent present necessity if the State is to discharge its highest duty to this class of its wards and to the future well being of society. The institution should not be located nearer than twenty miles of the city, on not less than thirty acres of land, and where the surroundings are not obtrusive to cause the situation to be in any way disturbed. An institution so located would admit of nature study being added to the course of instruction, which being most interesting, would be a potent influence in breaking up the ill formed habits of life, which it is the object to reform, while it would also admit of instruction being given in the rearing of fowl and domestic animals in contributing to its maintainence. To those unacquainted with the character of the girls to be dealt with, and their past history and surroundings, it may seem unwise and unnecessary to keep them in the Refuge for so long a period (5 years) as the indefinite sentence permits. All who are engaged in this kind of work, and follow up the girls who go forth from such institutions, realize how meagre and temporary are the results for good, where the institution is made simply a house of detention for one or two or even three years.

The past life with all its evil associations must be forgotten, a new character must be formed, habits of industry cultivated, and a course of instruction and training given, that will fit them for a life of intelligent, independent efforts to gain a livelihood in new surroundings. The more complete this transformation is made before the girl is put to test, the more permanent and beneficial will be the results. This transformation cannot be made in a few years, many young people who are blessed with good homes, and opportunities for the best training of life, do not appreciate them until it is too late. Is it then a matter of wonder that some of these unfortunate ones, fail to realize their opportunities, and must be detained in the institution for their own good, longer often, than is the desire of the management? The necessity and wisdom of a longer period of detention and of supervision, has been realized in many of the neighboring States where a more intense and enlightened public sentiment prevails. in juvenile reformatory work, and methods, and which has found expression in their more recent legislation by making the term of committment to end at 21 years of age instead of 18 as it had been. Although the age limit is extended, it does not of necessity prevent an earlier discharge if the qualifications exist, but if non existent, then until they marry by consent obtained of the legal guardian, or reach the age of 21 they remain under supervision. It is by the record to say, that girls who are committed to the Refuge after having entered on an immoral life, and are discharged at the end of two or three years, as a rule, relapse into the old way of living, while there is not a case on record, where any have done

Bakery

so, who have remained until near the end of the indefinite term, which may be a full period of five years. The instruction and training given, will do much to establish moral strength of will, but not all that is necessary in every case, and it requires the aid of advancing time to carry them beyond the adolescent age and to develop in them the full womanly character to safe guard their future. How pathetic, in some instances, has been the appeal to have a daughter taken back, after having been released from the Refuge on the assurance of parents and sympathetic friends of the better home conditions, and of more careful exercise of parental authority for her protection, when parental control has again been thrown off, and the child has reentered upon her past shameful life. If there is to be a reformation, it can more surely be effected by pursuing the course of training for the period of time experience has proved necessary to its accomplishment, short of which there is nothing to expect, but failure, and the perpetuation of a more extended social evil in society.

It will bear repeating what has been expressed in previous reports, that it should be distinctly understood the Refuge for Girls is in no sense a place of punishment, but a school to train girls, to lead them into proper channels of thought, and to give them a correct standard of life.

Herewith are transmitted the report of the Principal, the Inspector of Schools, and the statistical tables in connection with the work and management of the refuge.

JAMES NOXON,
Inspector.
TORONTO, October, 1902.

REFUGE FOR GIRLS.

JAMES NOXON, ESQ.,
Inspector:

SIR,—I have the honor to present the Annual Report of the Refuge for Girls for the year ending 30th September, 1902.

The course of instruction outlined in last year's Report has been continued in each department.

The following list shows the work done in the Laundry during the year:—

Aprons	8,586	Quilts	583
Bakers caps	68	Sheets	4,595
Bath gloves	2,446	Stand covers	354
Blankets	425	Skirts	704
Bread covers	452	Shirt waists	517
Chemises	3,798	Stocking prs	4,513
Collars	3,646	Table cloths	735
Cuffs prs	180	Table napkins	1,972
Curtains	450	Tray covers	393
Drawers	4,347	Underwaists	4,755
Dresses	3,794	Towels hand	10,156
D'oyleys	422	" kitchen	18,600
Dusters	10,279	Sideboard covers	207
Mattress covers	211	Miscellaneous	2,885
Nightdresses	4,223		
Pillow cases	4,633	Total	105,621
Pillow shams	743		

BAKERY.

Bread made	24,299 lbs
Buns "	720 doz.
Gingerbread	578 lbs.

Dining Room.

Kitchen.

The food for both officers and girls is cooked by the girls under the instruction of a graduate of the School of Domestic Science.

Sewing Room, Articles Mended.

Aprons	1,926	Quilts	31
Blankets	175	Shirt waists	12
Bags	15	Shawls	26
Chemises	1,030	Skirts	168
Drawers	1,222	Sheets	11
House dresses	2,187	Stockings, prs	2,222
Night dresses	490	Towels	89
Mattresses	25	Window shades	17
Mitts, prs	13		
Under waists	1,247	Total	10,923
Pillow cases	8		

40 Yds crotched lace.
18 Toques and Tam'o shanters.
8 D'oyleys.
2 Pairs slippers.

Dress Making Room, Clothing Made.

Aprons	75	Night dresses	64
Belts	18	Skirts	60
Bathrobe	1	Shirt waists	33
Books covered	149	Sleeves, prs	137
Chemises	22	Tray covers	20
Collars	19	Towels	82
Cuffs	4	Under waists	75
Curtains	17	Wrapper	1
Drawers	186	Miscellaneous	687
House dresses	119		
Tailor made	12	Total	1,785
Fichues	4		

School.

Under Instruction	72
Number in Fourth Reader	20
Number in Third Reader	32
Number in Second Reader	16
Number in First Reader	4
Number in Spelling and penmanship	72
Number in Arithmetic (graded)	72
Number in English and Canadian History	20
Number in Physiology	20
Number in Grammar, Class A	20
Number in " " B	32
Number in Geography " A	20
Number in " " B	32
Number in " " C	15
Number in Language lessons	16
Number in Supplementary Reading	36
Number in Current History	36
Number in Map Drawing	20
Number in Literature and memory work	68
Number in Every Day Science	36
Number in Nature Study	36

In addition to these subjects a singing class is held in which voice culture and sight-reading are taught weekly.

In the library are one hundred and eighty volumes, in addition to the following periodicals and papers:—*The Globe, The Mail and Empire,* Home

Sewing Room.

Chat, The Girls' Own, Ladies' Home Journal, Womens' Journal, Methodest Magazine, The Wide World, The Illustrated London News, twelve copies of "Onward" and twelve copies "Pleasant Hour."

The Semi-Annual Reports of the School have been forwarded you by the Public School Inspector, Mr. David Fotheringham.

Having submitted these tables showing the amount of work done in training the girls in domestic and school work it would be unfair to leave unnoticed other important factors for developing the moral and spiritual life of the girls of the Refuge.

Every Sunday morning a number of ladies from Parkdale meet here to teach the Sunday School lessons as arranged in the International Series. A religious service is held every Sunday afternoon and a week-night service every Friday evening by one of the clergymen of Parkdale—Episcopal, Presbyterian, Methodist, Baptist, or Salvation Army.

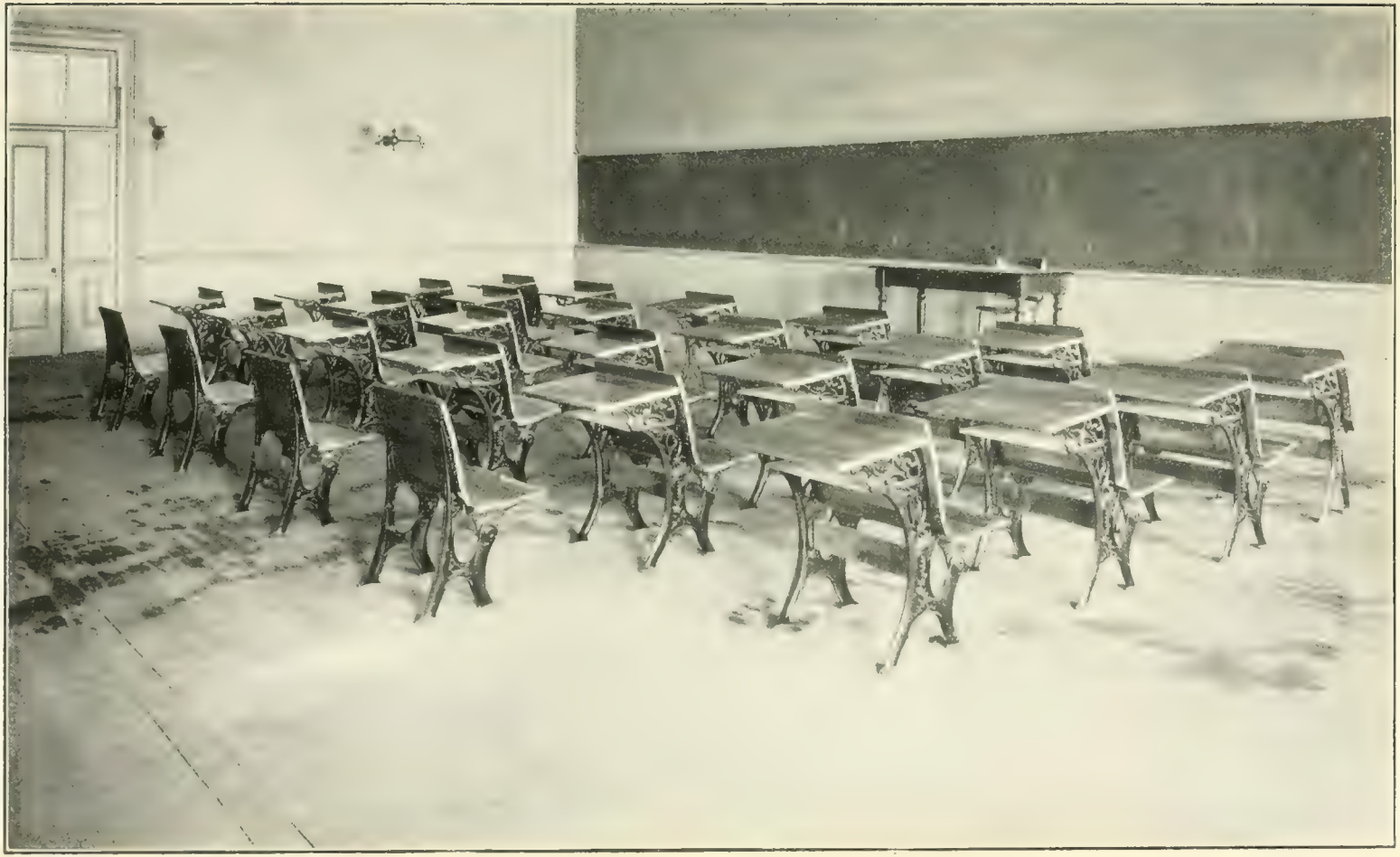
Rev. Father Walsh, Roman Catholic Chaplain, holds classes for religious instruction on Thursday and Saturday of each week in addition to holding Mass every Sunday morning.

The voluntary services of these kind friends are supplemented by the daily instruction of the staff whose constant effort is to hold before the girls the true ideal of womanhood and thus fit them to become acceptable citizens. It is said that our girls are kept too long in the Refuge. If we consider their lives before committal, their freedom of action, and their age at entrance to the Refuge when restraint and discipline are most irksome to youth it is no matter of surprise that a long time must elapse before they become interested either in work or study. Our surroundings too add to this unrest. What was an open field twenty years ago is now the centre of factories and baseball grounds. When a game is on during the baseball season the teacher's voice is drowned by the shouts of enthusiastic merrymakers among whom are the relatives and friends of many of our girls now shut in from pleasures they once enjoyed. During the winter months the bands at the open-air skating rinks makes the night one of unalloyed misery to her who once enjoyed these amusements.

Here within sight and sound of all that recalls the joys of former days is it strange that some time must elapse before other and more sedate occupations take root and under fostering care a new ideal of life be developed? A proof that this has been accomplished may be seen any day during the out-door recreation when the older girls—girls longest in the Refuge—walk around with book in hand intent upon their studies. Again during evening recreation when games are provided these girls prefer books from our library.

With much to encourage it is to be regretted that failures have occurred. Among those who left during the year were four released at eighteen years of age. Two of these whose sentences were "until eighteen years old" left on expiration of sentence and at once returned to their evil ways. Another after having refused a "Ticket of Leave," was discharged unconditionally by order from the Department of Justice, Ottawa, upon the persistent appeals of a mother who had served the longest possible term in the Reformatory. In a short time her friends made every effort to have her returned, for causes not necessary to repeat, to complete her indefinite sentence of five years. The fourth was released on recommendation for good conduct, placed at service in an excellent family and in six weeks left and voluntarily entered upon a life of shame.

Without any legal restraint resting upon them they left at an age when girls of this class most need a wise head and kind heart to tide them over the shoals and quicksands of youth.



School Room

I cite these cases with the hope that such facts may come under the notice of him who commits young girls to the "Refuge" and that those interested in the reclamation of young girls may learn that it is necessary to protect them until they have acquired the knowledge and appreciation of the dignity of womanhood.

There is not one case of failure to record where a girl remained the full term of an indefinite sentence.

I have the honor to be, Sir,

Your obedient servant,

M. C. ELLIOTT,
Principal.

REFUGE.

	1901.	1902.
No. of inmates beginning of year (Oct. 1st)	72	75
" since admitted	19	21
" transferred from Reformatory	2	3
	93	99
Discharged on expiration of term	16	11
" by Order		10
Transferred to Reformatory	1	4
" Department of Dependent and Neglected Children		1
Returned to relatives on recommendation of Surgeon's Report	1	
Apprenticed		1
In residence at close of year, 30th September	75	72
	93	99

The following tables give the statistical information concerning the Refuge for the year ending September 30th, 1902.

Total number sentenced direct to Refuge since opening in 1880	331	
Total number transferred from Reformatory since opening in 1880	68	
Total number in Refuge since opening		399
Number of girls in Refuge 1st October, 1901	75	
" sentenced direct during year	21	
" transferred from Reformatory	3	
		99
Discharged by expiration of sentence	11	
" "By Order"	10	
Transferred to Reformatory	4	
Apprenticed	1	
Transferred to Department of Dependent and Neglected Children	1	
Remaining in Refuge 30th Sept., 1902	72	
		99

Education at Entrance.

Can read and write	22	
Neither read nor write	2	
		24

Ages at Entrance.

Seven years	1	Sixteen years	4
Eleven "	1	Seventeen "	3
Thirteen "	5	Eigteen "	1
Fourteen "	1	Twenty "	1
Fifteen "	7		24

Offences.

Loose and disorderly	2	"Expedient to deal with under the Act"	1
Theft, stealing, larceny	4	Leading a dissolute life	1
Vagrancy	4	Without parental control	1
Uncontrollable, incorrigible	6	False pretences	1
Inmate house of ill-fame	2		24
Housebreaking	1		
Came voluntarily	1		

Sentences.

Three months	1	Five years	2
Six "	5	Indefinite	13
Two years	3		24

Counties from which girls were sent.

Carleton	6	Wentworth	6
Grey	1	Waterloo	1
Hastings	2	Wellington	1
Kent	1	York	4
Muskoka	1		24
Northumberland	1		

SCHOOL INSPECTIONS.

TORONTO, May 10, 1902.

JAMES NOXON, Esq., Inspector of Prisons and Charities:

DEAR SIR,—This week I made a careful inspection of the educational work and conditions of the Refuge for Girls and beg to report that as a whole it is in a promising condition.

The inmates, who just now number 70, are divided into one IV., one III., one II., and one Senior Part II. of the I. class. This classification, though some in each class are considerably behind others, enables the teachers who only teach for half a day to deal more effectively with the work than were the number of classes increased. The, work as formerly reported, is thorough, modern, and intelligent, though, of course, owing to the absence of one of the regular teachers taking a Normal course, the substitute will require some time to get her classes as thoroughly in hand and responsive as one whose term has been long enough to secure the confidence and attachment of her pupils.

In most of the studies I am again able to report a high percentage of correct work under as rigid an examination as public school scholars of corresponding classes would be subjected to In five of these 90 per cent or over was secured; in seven 70 to 84 per cent.: and in two 60 and 63 per cent. In only one (arithmetic in IV. class) did the percentage fall to a disappointing degree. In all classes, but especially in the III., has handwriting greatly improved. This is to be attributed in part to the special attention given, but more to the introduction of the sloping system of writing instead of the vertical.

To form a just estimate of the work done and of the skill and success of the teaching staff it should be borne in mind that the average age of inmates of the Refuge is greater by four or five years than in corresponding public school classes, and that the great majority are taken in hand without the advantages of good home training or of good primary work under experienced teachers. Minds and habits have been allowed to become shaped or warped by the life

from which this class of citizens has been removed to the Refuge for their own and society's good.

This last consideration suggests another, viz., that after mental discipline and self-control have at the cost of great labor and much anxiety been begun it seems a misfortune to a girl for friends through influence or otherwise to obtain her removal from the Refuge to apprenticeship or on other pretext when as a rule such training and development will cease. Much better would it be for her and society that she should remain till in the judgment of the principal and her assistants this course were reasonably safe and she gave evidence of being fitted for true womanhood and good citizenship.

And this thought leads naturally to another, viz., whether the present buildings and their location are adequate, appropriate, and fitted to promote the most rapid and complete transformation of vagrants and illiterates into true and good Canadians. Would not a building erected especially to meet and correct the conditions, habits, and associations of lawless girls miles away from city or town, with spacious recreation grounds, large garden plots and orchard and shrubbery grounds for diversion and work be far better? With all the development of Ontario in resources, in education and charitable enterprises, I would that our rulers could see the wisdom—even necessity—of such an institution where all the conditions would strongly contribute to the blotting out of the past and building up for the future, and where evil associates could not reach the weak and erring ones.

I was pleased to find a large hall under preparation for a school and assembly room. Permit me to suggest that modern, single school-room desks be introduced and that everything possible be done to provide sufficient light as that I fear will be seriously inadequate. A modern map of the Empire should be added to those already on the walls.

It would be a great injustice did I close this report without stating that in my opinion very much of the present efficiency of the Refuge is due to the ubiquitous, wide-awake, efficient and lady-like principal who greatly facilitated and lightened my work, and seemed to be able to place her finger on every weak spot in the management or conditions, and who gave ample credit to all that was creditable and efficient in the institution.

I have the honor to be, Sir,

Your obedient servant,

D. FOTHERINGHAM, P. S. I.

TORONTO, December 23, 1902.

JAMES NOXON, Esq., Inspector of Prisons and Charities, Toronto:

DEAR SIR,—Yesterday I made my third half-yearly inspection of the Refuge for Girls, and have the honor to report that I found the accommodation in the condition formerly reported—unsuitable, inadequate, and incomplete so far as educational facilities are concerned. Having called your attention to these matters and urged the pressing need of modern buildings with the best appliances and surroundings for the reclamation of the unfortunate class confined here I need merely direct your attention to my report of last May.

The work proper of the school-room I found going on quite as efficiently as formerly. Miss Nash having completed her course at the Normal School is at her post again if anything more energetic and thorough than before, while Miss Parrott is also thoroughly in earnest and doing good work.

In the classes of the former the value of the lessons heard ranged from 67 per cent. to 94—the former being in grammar and the latter in dictation. In the classes of the latter the range was from 60 to 91 per cent.—60 in arithmetic and 91 in spelling.

When we consider the disabilities under which instructions are given the standard of work attained is astonishingly high. The students these ladies instruct come into their hands with anything but studious habits—nay, their lives have unfitted them in a marked degree for consecutive application or thought, and without doubt their intellectual powers have been beclouded and warped, so that the intelligence, accuracy and extent of their attainments give unquestionable evidence to the patience, fidelity, skill and success of the teachers.

At the same time the wisdom of seeking to reclaim and educate this class of unfortunates is abundantly proven by the evident recovery of intellectual power—memory and reason—that so many of the girls are able to show for the short time they have been in the Refuge.

What may be accomplished by thorough earnestness and effort even under adverse conditions I found clearly shown in the marked improvement in writing since the Spencerian system was adopted and a reward offered for good results.

I found Miss Elliott, the Principal, on hand everywhere, with thorough grasp of the situation and resource for emergency; at the same time, tender towards the erring and ready to throw the weight of long experience and broad-minded study of the conditions and possibilities of the submerged into the scale for their uplifting and salvation.

Respectfully Yours,

D. Fotherinham, P. S. I.

THIRTY-THIRD ANNUAL REPORT

OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES

UPON THE

HOSPITALS AND CHARITIES, ETC.,

OF THE

PROVINCE OF ONTARIO.

BEING FOR THE YEAR ENDING 30TH SEPTEMBER,

1902.

PRINTED BY ORDER OF
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OFFICE OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES, ONTARIO,

PARLIAMENT BUILDINGS, TORONTO, DECEMBER, 1902.

SIR,—I have the honor to transmit herewith, to be presented to His Honor the Lieutenant-Governor, the Thirty-third Annual Report upon the Hospitals, Refuges, etc., for the official year ending 30th September, 1902.

I have the honor to be, Sir,

Your obedient servant,

T. F. CHAMBERLAIN,

Inspector.

THE HONORABLE J. R. STRATTON, M.P.P.,

Secretary of the Province of Ontario,

Toronto.

PARLIAMENT BUILDINGS,

TORONTO, DECEMBER, 1902.

To the Honorable SIR OLIVER MOWAT, *Knight Commander of the Order of St. Michael and St. George, member of the King's Privy Council for Canada and Lieutenant-Governor of the Province of Ontario.*

MAY IT PLEASE YOUR HONOR:

I beg to submit herewith the Thirty-third Annual Report upon the Hospitals, Refuges, etc, of Ontario, being for the official year ending 30th September, 1902

I have the honor to be,

Your Honor's most obedient servant,

J. R. STRATTON,

Provincial Secretary.

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Orphan's Home, Ottawa	92
St. Patrick's Orphan Asylum, Ottawa	92
St. Joseph's Orphan Asylum, Ottawa	93
Rescue Home and Children's Shelter, Ottawa	93
Infants' Home, Ottawa	93
Roman Catholic Orphans' Home, London	94
Protestant Orphans' Home, London	94
Women's Refuge and Infants' Home, London	94
Rescue Home for Women, London	95
Protestant Home, Orphanage Branch, St. Catharines	95
St. Agatha Orphan Asylum, St. Agatha	95
Orphans' Home, Fort William	96
Berlin Orphanage, Berlin	96

HOSPITALS, REFUGES, ETC.

In submitting the thirty-third annual report on Hospitals, Houses of Refuge, Orphan Asylums, Homes for Incurables, Convalescent Homes and Magdalen Asylums for the year ending 30th September, 1902, I have to state that I have made the usual inspections during the year, as required by the statute. The various institutions included in this report have given evidence of good management and improved administration, and many improvements have been made during the year. This satisfactory condition is, no doubt, largely due to the interest taken in these institutions by the citizens of the Province.

Two new Hospitals have been put in operation and placed upon the list during the past year, namely, the Royal Alexandra Hospital, Fergus, and the Ross Memorial Hospital, Lindsay, both of which compare most favorably with the best hospitals in the Province. No addition has been made in the number of Homes for old people during the year, and only one application has been made for aid to Orphanages under the Charity Aid Act, namely, the Royal True Blue Orphanage, Picton. All the Homes for the different classes are very generally distributed over the Province.

Two more County Houses of Refuge have been established during the year, namely, at Perth, in the County of Lanark and at Whitby, in the County of Ontario. There are still many counties in the Province without any institution of this kind, or other proper facilities for caring for their deserving poor. The grant of four thousand dollars offered by the Government to each county establishing such a Home, does not seem to have the effect which it was hoped to accomplish, and I think the time has come when this offer should be withdrawn and in lieu thereof a law be placed upon the Statute Book compelling the counties (or union of counties) to make suitable provision for the care of their poor people.

The number of patients in the Hospitals of the Province on the 1st October, 1901, was 2,287; number admitted during the year, 29,833; total number of patients treated during the year, 33,113.

These figures do not include the thousands who received treatment at the various Hospitals as out-door patients. The number of deaths in the Hospitals during the year was 1,705; the total number of days' stay of patients in the Hospitals was 817,822.

The revenue of Hospitals from all sources, other than the Government grant, was $581,585.56, and the Provincial grant for last year was $110,000. There was expended for the maintenance of Hospitals during the year $673,909.21; the average cost per patient per day was $0.83 4-5; the percentage of the Provincial grant to the total expenditure for maintenance was .16. The tables will be found to contain full particulars as to the patients, their diseases, the receipts and expenditures, etc.

There are about 100 Homes for old people, Orphanages, Magdalen Asylums, Convalescent Homes and Homes for Incurables in the Province, having an aggregate population of 9059; and the annual expenditure for maintenance, apart from the Government grant, was $345 044.22. The Provincial grant to these institutions for the past year is $74.502 83. This class of institutions is managed by charitable and other organizations, trustee boards, municipalities, etc. In the various tables will be found particulars as to receipts and expenditure, and other information in connection with their management.

TABLE I.—Showing the general movements in each hospital separately.

Hospitals.	Location.	Number remaining under treatment on 1st Oct., 1901.	Number admitted during the year ending 30th Sept. 1902	Number of births in Hospitals during the year.	Total number under treatment during the year ending 30th Sept., 1902.	Number discharged during the year.	Number who died during the year.	Number remaining under treatment on 30th Sept. 1902
General Hospital	Toronto	267	3,027	138	3,432	2,981	201	250
Grace Homeopathic Hospital	"	66	1,000	122	1,188	1,047	57	84
Hospital for Sick Children	"	128	621	....	749	568	59	122
St. Michael's Hospital	"	171	2,474	80	2,425	2,135	124	166
Western Hospital	"	63	844	22	929	775	66	88
The Orthopedic Hospital	"	30	248	...	278	246	1	31
City Hospital	Hamilton	101	1,273	37	1,411	1,233	114	64
St. Joseph's Hospital	"	32	424	...	456	386	31	39
General Hospital	Kingston	73	1,356	41	1,470	1,353	40	77
Hotel Dieu Hospital	"	90	1,385	.....	1,475	1,341	47	87
General Protestant Hospital	Ottawa	76	1,298		1,374	1,219	59	96
Roman Catholic Hospital	"	116	1,667	...	1,783	1,555	96	132
Misericorde Maternity Hospital	"	39	170	158	367	318	16	33
Sick Children's Hospital	"	8	60	.....	68	56	4	8
Maternity Hospital	"	13	171	149	333	301	19	13
St. Luke's General Hospital	"	43	906	...	949	867	37	45
General Hospital	London	141	1,276	35	1,422	1,230	100	92
St. Joseph's Hospital	"	38	519	16	573	507	28	38
General and Marine Hospital	St. Catharines	26	304	11	341	284	38	19
Galt Hospital	Galt	23	314	4	341	300	20	21
General Hospital	Guelph	57	642	26	725	642	26	57
St. Joseph's Hospital	"	31	363	.....	394	340	24	30
General Hospital	Pembroke	30	374	...	404	364	18	22
General Hospital	Mattawa	Hospital and records destroyed by fire.						
J. H. Stratford Hospital	Brantford	40	401	28	469	401	27	41
St. Joseph's Hospital	Port Arthur	40	468	3	511	437	33	41
Belleville Hospital	Belleville	22	432	2	456	421	17	18
St. Vincent de Paul Hospital	Brockville	49	721	...	770	694	29	47
General Hospital	"	35	455	11	501	428	31	42
General Marine Hospital	Collingwood	9	181	10	200	170	12	18
Nichol's Hospital	Peterborough	28	331	1	360	318	26	16
St. Joseph's Hospital	"	29	475	.....	504	453	14	35

Hotel Dieu Hospital	Windsor	23	313		336	296	18	32			
St. Joseph's Hospital	Chatham	32	466	29	508	476	26	26			
General Hospital	"	30	440	30	500	434	20	46			
General Hospital	Stratford	31	249	9	289	248	16	25			
Anaasa Wood Hospital	St. Thomas	12	161	11	184	162	10	12			
General and Marine Hospital	Owen Sound	14	249	4	267	238	11	18			
General Hospital	Sudbury	7	164		171	152	12	7			
St. Joseph's Hospital	"	15	291		306	271	10	25			
General Hospital	Huntsville	10	357	3	360	368	8	14			
Huntsville Hospital	"	13	316	3	332	312	1	19			
Woodstock Hospital	Woodstock	9	147		156	119	23	14			
Berlin and Waterloo Hospital	Berlin	11	139	5	155	135	10	10			
General Hospital	Sarnia	19	293	5	317	270	20	27			
Royal Victoria Hospital	Barrie	15	124	1	140	114	13	13			
Hotel Dieu Hospital	Cornwall	31	486		517	466	15	36			
General Hospital	"	14	291		305	263	19	23			
National Sanatorium Hospital	Gravenhurst	61	190		251	142	15	104			
General Hospital	Bat Portage	9	160		169	99	8	22			
General Hospital	Parry Sound	7	156	2	165	133	15	11			
General Hospital	Sault Ste. Marie	43	746		789	692	32	65			
Victoria Hospital	Renfrew	5	93	3	101	92	5	4			
Victorian Hospital	Thessalon	2	36		38	30	1	7			
Royal Alexandra Hospital	Fergus		126	3	129	106	3	20			
Totals for 1902		2,287	20,833	993	33,113	28,990	1,705	2,418			
Totals for 1901		2,262	20,730	937	32,929	29,008	1,631	2,290			

TABLE No. II.—Detailed analysis of the diseases or ailments for which patients received treatment for the year ending 30th September, 1902.

Disease.	Male.	Female.	Total.
Alimentary Canal.			
Colic	40	42	82
Constipation	63	71	134
Dysentery	68	58	126
Diarrhœa	91	66	157
Dyspepsia	146	141	287
Enteritis	43	42	85
Fistula-in-ano	82	45	127
Gastrodynia	26	35	61
Gastritis	269	214	483
Hæmorrhoids	193	128	321
Hæmatemesis	10	14	24
Intestinal Worms	11	11	22
Œsophagus (diseases of)	16	18	34
Pharyngitis	37	22	59
Ptyalism	3	6	9
Peritonitis	52	133	185
Quinsy	49	29	78
Stomatitis	23	22	45
Tonsilitis	150	202	352
Typhlitis	221	133	354
Ulceration of Stomach	40	69	109
Appendicitis	305	274	579
Intestinal obstruction	15	9	24
Other diseases of alimentary canal	8	12	20
Total	1,961	1,796	3,757
Brain and Nervous System.			
Apoplexy	36	17	53
Chorea	16	52	68
Catalepsy	3	4	7
Concussion of brain	42	6	48
" spine	13	7	20
Compression of brain	8	3	11
" spine	4	7	11
Delirium tremens	75	6	81
Epilepsy	55	47	102
Hemiplegia	60	51	111
Hysteria	44	189	233
Inflammation of brain	19	12	31
Insolation	3	..	3
Insomnia	40	42	82
Insanity	36	81	117
Locomotor Ataxia	33	9	42
Myelitis	10	10	20
Neuralgia	121	137	258
Neuroma	7	15	22
Paralysis, general	70	44	114
Paraplegia	46	22	68
Paralysis agitans	5	2	7
Softening of the brain	9	6	15
Spina bifida	5	2	7
Sciatica	77	43	120
Spinal curvature	29	27	56
Tubercular meningitis	22	36	58
Tetanus	4	6	10
Neurasthenia	88	194	282
Neuritis (alcoholic)	1	..	1
Other nervous diseases	17	9	26
Total	998	1,086	2,084

Disease.	Male.	Female.	Total.
Bones.			
Anchylosis	32	4	36
Caries	75	50	125
Exostosis	10	6	16
Necrosis	130	67	197
Ostitis	35	15	50
Periostitis	30	28	58
Rickets	11	11	22
Tubercular arthritis	32	20	52
Osteo myelitis	5	2	7
Other bone diseases	3	2	5
Total	363	205	568
Circulation.			
Angina pectoris	18	17	35
Aneurisms	18	13	31
Atheroma of vessels	14	4	18
Cyanosis	3	1	4
Disease of aortic valves	45	23	68
" mitral valves	99	55	154
" tricuspid valves	5	1	6
" pulmonary artery	10	12	22
Endocarditis	42	32	74
Heart, dilation of	47	22	69
" hypertrophy	15	8	23
" degeneration	24	11	35
Nævus	5	5	10
Pericarditis	30	18	48
Phlebitis	13	21	34
Phlegmasia dolens	5	12	17
Varicose veins	112	116	228
Heart failure	..	2	2
Tobacco heart	1	..	1
Total	506	373	879
Dislocations.			
Ankle	38	24	62
Bones of the hand	18	5	23
" foot	15	7	22
Clavicle	29	12	41
Elbow	13	8	21
Femur	26	15	41
Humerus	25	7	32
Knee	10	8	18
Lower maxilla	8	..	8
Patella	5	3	8
Wrist	13	7	20
Total	200	96	296
Ear.			
Cophosis	7	6	13
Otorrhœa	16	15	31
Otitis media	70	63	133
Mastoid abscess	8	16	24
Other diseases of the ear	1	..	1
Total	102	100	202

TABLE No. II.—*Continued.*

Disease.	Male.	Female.	Total.
Eye.			
Amaurosis	5	4	9
Amblyopia	3	2	5
Blepharospasmus	2	3	5
Cataract	146	113	259
Entropion	7	6	13
Ectropion	7	2	9
Foreign body in the eye	72	4	76
Glaucoma	23	35	58
Iritis	72	53	125
Keratitis	28	23	51
Leucoma	5	2	7
Ophthalmia	35	21	56
" catarrhal	38	20	58
" purulent	14	8	22
" granular	22	17	39
" gonorrhœal	23	17	40
Pterygium	3	2	5
Retinitis	17	7	24
Sclerotitis	10	5	15
Staphyloma	9	4	13
Strabismus	22	33	55
Trichiasis Ciliorum	2	1	3
Ulcer of Cornea	79	50	129
Errors of Refraction	7	2	9
Epiphora	4	5	9
Other diseases of the eye	9	3	12
Total	664	442	1,106
Fractures.			
Bones of the head and face	77	11	88
" hand	36	14	50
" foot	53	13	66
" pelvis	6	8	14
Clavicle	27	8	35
Femur	130	76	206
Fibula	79	17	96
Humerus	54	23	77
Patella	24	2	26
Ribs	57	15	72
Radius	38	20	58
Scapula	14	6	20
Sternum		1	1
Tibia	138	20	158
Ulna	21	3	24
Vertebra	8	1	9
Total	762	238	1,000
Liver.			
Abscess of liver	14	15	29
Acute atrophy of liver	6	4	10
Cirrhosis	26	24	50
Fatty liver	7	11	18
Gall stones	26	57	83
Hepatitis	30	18	48
Hydatids of liver	2		2
Jaundice	36	33	69
Waxy liver	4	1	5
Total	151	163	314

Disease.	Male.	Female.	Total.
Nose and Face.			
Catarrh	82	73	155
Epulis	12	9	21
Epistaxis	24	8	32
Livoma	8	4	12
Ozœna	6	3	9
Polypus	43	49	92
Adenoids and tonsils	88	114	202
Hair lip and cleft palate	18	9	27
Other diseases of nose & face	9	4	13
Total	290	273	563
Poisons.			
Gases	17	1	18
Irritant	21	21	42
Lead poisoning	12		12
Narcotic	10	10	20
Narcoto-irritant	6	2	8
Total	66	34	100
Respiratory Organs.			
Asthma	92	81	173
Bronchitis, acute	294	207	501
" chronic	114	69	183
Croup	28	32	60
Emphysema of lung	25	23	48
Empyema	66	38	104
Hydrothorax	5	2	7
Pneumonia	323	209	532
" pleuro	63	52	115
" typho	23	29	52
" broncho	35	32	67
Pleurisy	182	116	298
Phthisis	142	131	273
Pleurodynia	16	13	29
Tuberculosis	317	258	575
Laryngitis	12	12	24
Hæmoptysis	3	2	5
Other diseases	5	7	12
Total	1,745	1,313	3,058
Spleen.			
Splenitis	7		7
Waxy spleen	3		3
Total	10		10
Skin.			
Acne	6	5	11
Boils	37	9	46
Burns and scalds	67	51	118
Chilblains	18	10	28
Carbuncle	33	13	46
Corns and Bunions	6	13	19
Carried forward			

TABLE No II.—*Continued.*

Disease.	Male.	Female.	Total.
Skin.—Continued.			
Brought forward			
Elephantiasis	1		1
Eczema	130	89	219
Erythema	7	11	18
Frost Bites	36	5	41
Herpes	11	7	18
Impetigo	6	6	12
Intertrigo	2	5	7
Lupus	21	10	31
Lichen	2	2	4
Onychia	3	7	10
Pruritus	3	5	8
Pediculi	13	3	16
Pityriasis	2	1	3
Psoriasis	12	10	22
Roseola	4	3	7
Rupia	3	1	4
Ringworm	36	6	42
Scabies	22	9	31
Sycosis	18	6	24
Urticaria	8	9	17
Whitlow	27	10	37
Ichthyosis		1	1
Pemphigus	2		2
Other diseases of the skin	5	3	8
Total	541	310	851
Urinary Organs.			
Bright's Disease, acute	99	70	169
" chronic	58	41	99
Balanitis	8		8
Bubo	29	13	42
Cystitis	137	114	251
Condyloma	1	6	7
Diabetes Mellitus	25	21	46
" Insipidus	1	6	7
Enlarged Prostate	59		59
Epididymitis	36		36
Gonorrhœa	136	64	200
Gleet	1		1
Hydrocele	77		77
Hæmatocele	8	2	10
Incontinence of Urine	27	26	53
Pyelitis	9	6	15
Phymosis	115		115
Paraphymosis	8		8
Retention of Urine	37	27	64
Suppurative Nephritis	40	35	75
Stricture	108	111	119
Spermatorrhœa	5		5
Urinary Calculus	66	20	86
Ectopia Vesicæ	4	1	5
Floating Kidney	2	54	56
Varicocele	75		75
Congenital defects	3	1	4
Other diseases	1	5	6
Total	1,175	523	1,698

Disease.	Male.	Female.	Total.
Women.			
Amenorrhœa		33	33
Abortion		108	108
Dysmenorrhœa		98	98
Erosion of Os Uteri		147	147
Fistula Recto-Vaginal		43	43
" VesicoVaginal		20	20
Metritis and Endometritis		582	582
Menorrhagia		89	89
Ovarian Disease		442	442
Salpingitis		70	70
Parturition		841	841
Premature Labour		77	77
Ectopic Gestation		18	18
Uterus, anteversion of		45	45
" retroversion of		154	154
" anteflection of		24	24
" retroflection of		39	39
" inversion of		10	10
" prolapsus of		85	85
Womb, polypus of		53	53
" fibroid of		158	158
" cancer of		121	121
Laceration of perineum		109	109
Laceration of cervix		126	126
Other diseases		66	66
Total		3,558	3,558
Zymotic and General.			
Anæmia	112	262	374
Anasarca	11	7	18
Chicken pox	4	6	10
Cholera, Asiatic			
" morbus	8	9	17
" infantum	11	12	23
Chlorosis		59	59
Diphtheria	281	377	658
Dropsy	53	47	100
Erysipelas	91	50	141
Fever, intermittent	21	28	49
" remittent	7	9	16
" scarlet	276	380	656
" pernicious	1	2	3
" typho-malarial	48	34	82
" typhoid	1,328	739	2,067
" typhus	1	4	5
" cerebro-spinal	7	7	14
" puerperal		23	23
" continued	11	3	14
Gout	9	1	10
Influenza	216	178	394
Leucocythemia	1	1	2
Measles	101	107	208
Mumps	84	12	96
Pyæmia, septicæmia	87	105	192
Purpura	7	16	23
Rheumatism, acute	322	177	499
" chronic	193	117	310
" gonorrhœal	29	7	36
Carried forward			

TABLE No. II. -*Concluded.*

Disease.	Male.	Female.	Total.
Zymotic and General. Cont.			
Brought forward			
Small pox	8	4	12
Scrofula	18	21	39
Syphillis, primary	62	37	99
" secondary	26	41	67
" tertiary	26	26	52
" hereditary	5	6	11
Vaccination	17	13	30
Whooping cough	10	15	25
Anthrax	1		1
Chancroid	7	1	8
Tubercular disease, n. e. s.	23	30	53
Hodgkins disease	1	1	1
Marasmus		1	1
Total	3,524	2,975	6,499
Miscellaneous, not otherwise classed.			
Abcess, general	283	188	471
" psoas	21	11	32
" of breast	2	42	44
Alcoholism	616	40	656
Amputations	195	39	234
Cancer, epithelial	135	100	235
Encephaloid	75	64	139
" schirrus	13	18	93
" melanotic	2	3	5
Contusions	251	42	293
Synovitis	30	20	50
Adenitis	41	26	67
Uraemia	16	11	27
Orchitis	26		26
Arthritis	10	11	21
Ingrown toe nail	5	4	9
Pott's Disease	38	31	69
Torticollis	1	2	3
Hip joint disease	23	16	39
Carried forward			

Disease.	Male.	Female.	Total.
Miscellaneous, not otherwise classed. Continued.			
Brought forward			
Bursitis	6	7	13
Mastitis		1	1
Genu Valgum	3	2	5
Loose cartilage in knee	2	3	5
Coccygodynia		1	1
Frost bite	1		1
Bell's paralysis	1	1	2
Cellulitis	54	50	104
Coxalgia	36	32	68
Debility	120	216	336
Goitre	14	65	79
Gangrene	47	12	59
Gunshot wounds	64	4	68
Hernia	314	182	496
Injuries not otherwise class'd	672	215	887
Sprains	111	37	148
Tumors—fibroid	19	128	147
" —fatty	15	63	78
" —cartilaginous	5	9	14
" —cystic	22	99	121
" —other	75	126	201
Tetanus	10	7	17
Talipes	75	21	96
Ulcers	219	168	387
Sinus	5	1	6
Morphinism	2	5	7
Sarcoma	9	7	16
Prolapsus ani	2	4	6
Cocainism	1		1
Lumbago	8	1	9
Fissure of anus	1	1	2
Collapse	1		1
Deformities and diseases of joints, n. e. s.	77	62	139
Miscellaneous	27	41	68
Total.	3,801	2,301	6,102
Grand total	16,859	15,786	32,645

TABLE III.—Shewing the collective stay in days of the adult and infant patients; also the average length of time each patient was under treatment.

Name of Hospital.	Location.	Number of patients, including infants born.	Collective stay of infants under one year of age.	Collective stay of adult patients.	Total collective stay of adults and infants.	Average stay of each patient, including the infants.
General Hospital	Toronto	3,432	2,114	91,767	93,881	27
Grace Homœopathic Hospital	"	1,188	325	24,713	25,038	21
Hospital for Sick Children	"	749	700	39,801	40,501	54
St. Michael's Hospital	"	2,425	1,625	58,213	59,838	25
Western Hospital	"	929	471	24,384	24,855	27
The Orthopedic Hospital	"	278	18	11,927	11,945	43
City Hospital	Hamilton	1,411	533	31,483	32,016	23
St. Joseph's Hospital	"	456	63	11,102	11,165	24
General Hospital	Kingston	1,470	230	25,739	25,969	17
Hotel Dieu Hospital	"	1,475	...	33,979	33,979	23
General Protestant Hospital	Ottawa	1,374	89	30,495	30,584	22
Roman Catholic Hospital	"	1,783	21	40,202	40,223	22
Misericorde Maternity Hospital	"	367	393	11,290	11,683	31
Sick Children's Hospital	"	68	47	3,438	3,485	51
Maternity Hospital	"	333	1,810	2,330	4,140	12
St. Luke's General Hospital	"	949	15	18,221	18,236	19
General Hospital	London	1,422	620	33,030	33,650	23
St. Joseph's Hospital	"	573	282	12,896	13,178	23
General and Marine Hospital	St. Catharines.	341	196	7,376	7,572	22
Galt Hospital	Galt	341	64	6,803	6,867	20
General Hospital	Guelph	725	582	20,079	20,661	28
St. Joseph's Hospital	"	394	77	10,327	10,404	26
General Hospital	Pembrooke	404	....	9,901	9,901	24
General Hospital	Mattawa	*	....	....	.....	...
J. H. Stratford Hospital	Brantford	469	326	9,590	9,916	21
St. Joseph's Hospital	Port Arthur	511	35	12,515	12,550	24
Belleville Hospital	Belleville	456	235	7,874	8,109	17
St. Vincent de Paul Hospital	Brockville	770	65	18,198	18,263	23
General Hospital	"	501	428	12,342	12,770	25
General and Marine Hospital	Collingwood	200	231	3,985	4,216	21
Nichol's Hospital	Peterborough	360	41	7,568	7,609	21
St. Joseph's Hospital	"	504	....	13,785	13,785	27
Hotel Dieu Hospital	Windsor	336	....	6,759	6,759	20
St. Joseph's Hospital	Chatham	508	432	9,803	10,235	20
General Hospital	"	500	440	12,970	13,410	27
General Hospital	Stratford	289	170	6,651	6,821	23
Amasa Wood Hospital	St. Thomas	184	139	3,645	3,784	20
General and Marine Hospital	Owen Sound	267	88	6,466	6,554	24
General Hospital	Sudbury	171	....	2,898	2,898	16
St. Joseph's Hospital	"	306	....	4,882	4,882	16
General Hospital	Huntsville	390	43	7,669	7,712	20
Huntsville Hospital	"	332	209	7,135	7,344	22
Woodstock Hospital	Woodstock	156	....	3,724	3,724	24
Berlin and Waterloo Hospital	Berlin	155	86	3,559	3,645	23
General Hospital	Sarnia	317	55	7,009	7,064	22
Royal Victoria Hsspital	Barrie	140	23	3,492	3,515	25
Hotel Dieu Hospital	Cornwall	517	....	14,102	14,102	27
General Hospital	"	305	....	8,391	8,391	27
National Sanatorium Hospital	Gravenhurst	251	...	24,439	24,439	97
General Hospital	Rat Portage	109	6	2,605	2,611	24
General Hospital	Parry Sound	165	40	2,480	2,520	16
General Hospital	Sault Ste. Marie	789	....	15,452	15,452	20
Victoria Hospital	Renfrew	101	41	1,452	1,493	14
Victorian Hospital	Thessalon	38	...	902	902	23
Royal Alexandra Hospital	Fergus	129	102	2,474	2,576	19
Total for 1902		33,113	13,510	804,312	817,822	24
Total for 1901		32,929	13,401	761,822	780,613	25

*Hospital and records destroyed by fire.

TABLE IV.—Shewing the deductions which have to be made from the collective stay of patients, for the protracted residences of incurables, and lying-in-cases, etc. For persons coming within these classes only seven cents per day is allowed.

Name of Hospital.	Location.	Collective days' stay, exclusive of infants, under one year of age.	Deduct for incurables and lying-in cases, for which only Refuge rate is allowed, also deduct the days' stay of patients who paid $3 and over per week, also infants under one year.	Number of days' stay for which Hospital allowance is to be made.
General Hospital	Toronto	91,767	22,217	69,550
Grace Homœopathic Hospital	"	24,713	8,949	15,764
Hospital for Sick Children	"	39,801	738	39,063
St. Michael's Hospital	"	58,213	2,243	55,970
Western Hospital	"	24,384	1,122	23,262
The Orthopedic Hospital	"	11,927	.....	11,927
City Hospital	Hamilton	31,483	17,742	13,741
St. Joseph's Hospital	"	11,102	3,403	7,699
General Hospital	Kingston	25,739	7,913	17,826
Hotel Dieu Hospital	"	33,979	3,037	30,942
General Protestant Hospital	Ottawa	30,495	16,069	14,426
Roman Catholic Hospital	"	40,202	15,307	24,895
Misericorde Maternity Hospital	"	11,290	5,650	5,640
Sick Children's Hospital	"	3,438	920	2,518
Maternity Hospital	"	2,330	78	2,252
St. Luke's General Hospital	"	18,221	1,219	17,002
General Hospital	London	33,030	14,054	18,976
St. Joseph's Hospital	"	12,896	8,486	4,410
General and Marine Hospital	St. Catharines	7,376	2,919	4,457
Galt Hospital	Galt	6,803	3,033	3,770
General Hospital	Guelph	20,079	4,957	15,122
St. Joseph's Hospital	"	10,327	3,520	6,804
General Hospital	Pembroke	9,901	2,178	7,723
General Hospital	Mattawa.	.....	.....	.....
J. H. Stratford Hospital	Brantford	9,590	3,056	6,534
St. Joseph's Hospital	Port Arthur	12,515	3,650	8,865
Belleville Hospital	Belleville	7,874	2,087	5,787
St. Vincent de Paul Hospital	Brockville	18,198	5,101	13,097
General Hospital	"	12,342	6,941	5,401
General and Marine Hospital	Collingwood	3,985	1,603	2,382
Nichol's Hospital	Peterborough	7,568	4,018	3,550
St. Joseph's Hospital	"	13,785	4,627	9,158
Hotel Dieu Hospital	Windsor	6,759	3,354	3,405
St. Joseph's Hospital	Chatham	9,803	5,885	3,918
General Hospital	"	12,970	2,945	10,025
General Hospital	Stratford	6,651	3,988	2,663
Amasa Wood Hospital	St. Thomas	3,645	398	3,247
General and Marine Hospital	Owen Sound	6,466	1,006	5,460
General Hospital	Sudbury	2,898	108	2,790
St. Joseph's Hospital	"	4,882	91	4,791
General Hospital	Huntsville	7,669	68	7,601
Huntsville Hospital	"	7,135	72	7,063
Woodstock Hospital	Woodstock	3,724	189	3,535
Berlin and Waterloo Hospital	Berlin	3,559	285	3,274
General Hospital	Sarnia	7,009	247	6,762
Royal Victoria Hospital	Barrie	3,492	240	3,252
Hotel Dieu Hospital	Cornwall	14,102	68	14,034
General Hospital	"	8,391	2,819	5,572
National Sanatorum Hospital	Gravenhurst	24,439	5,893	18,546
General Hospital	Rat Portage	2,605	.....	2,605
General Hospital	Parry Sound	2,480	2	2,478
General Hospital	Sault Ste. M	15,452	89	15,363
Victoria Hospital	Renfrew	1,452	82	1,370
Victorian Hospital	Thessalon	902	19	883
Royal Alexandra Hospital	Fergus	2,474	106	2,368
		804,312	204,794	599,518

*Hospital and records destroyed by fire.

TABLE V.—Relative to Income of Hospitals.

Name of Hospital.	Location.	Amount received from municipalities as a grant, and for patients' maintenance.	Amount received from patients for board.	Amount received as income from property or investments belonging to Hospital.	Subscription and donations of private individuals and incidental receipts.	Total receipts from all sources other than the Government grant.
		$ c.	$ c.	$ c.	$ c.	$ c.
General Hospital	Toronto.	14,283 95	35,357 00	19,584 28	4,219 01	73,444 24
Grace Homeopathic Hosp.	"	3,701 20	15,353 19	.....	936 00	19,984 39
Hospital for Sick Children	"	10,527 75	4,264 56	250 71	12,666 75	27,709 77
St. Michael's Hospital	"	12,849 85	15,285 01	.	1,631 00	29,765 86
Western Hospital	"	3,918 00	9,986 60	.	.....	13,904 60
The Orthopedic Hospital	"	.....	10,694 54	.	120 39	10,814 93
City Hospital	Hamilton	33,099 26	10,381 73	.....		33,480 99
St. Joseph's Hospital	"	138 85	4,854 60	576 00	400 50	5,969 95
General Hospital	Kingston	2,980 00	8,547 69	.	3,201 03	14,728 72
Hotel Dieu Hospital	"	900 00	4 775 00	444 00	3,624 38	9,743 38
General Protestant Hosp.	Ottawa	5,896 05	9,570 99	.....	7,364 45	22,831 49
Roman Catholic Hospital	"	2,362 00	7,942 36	100 00	1,431 46	11,835 82
Misericorde Maternity Hos	"	250 00	973 00	.	6,215 48	7,438 48
Sick Children's Hospital	"	250 00	1,222 31	.....	1,834 16	3,306 47
Maternity Hospital	"	225 00	2,271 23	.....	939 90	3,436 13
St. Luke's General Hospit'l	"	499 98	10,265 92	200 00	3,971 14	14,937 04
General Hospital	London	18,110 31	13,802 82	444 28	.....	32,357 41
St. Joseph's Hospital	"	.....	7,844 01	.....	1,544 75	9.388 76
General and Marine Hosp.	St. Catharines	1,740 00	3,855 53	200 00	3,422 19	9,217 72
Galt Hospital	Galt	2,100 00	3,393 39	.....	532 80	6,026 19
General Hospital	Guelph	3,285 00	9,012 56	7 46	2,724 93	15,029 95
St. Joseph's Hospital	"	1,000 00	4,588 79	.....	150 75	5,739 54
General Hospital	Pembroke	200 00	1,903 40	.	1,907 88	4,011 28
General Hospital	Mattawa	.....	.....	.....	.....	.....
J. H. Stratford Hospital	Brantford	3,250 00	3,762 40	.....	.....	7,012 40
St. Joseph's Hospital	Port Arthur	400 00	2,879 93	.....	2,069 00	5,348 93
Belleville Hospital	Belleville	614 75	2,844 61	.....	2,064 22	5,523 58
St. Vincent de Paul Hosp.	Brockville	700 00	4,943 61	120 00	3,858 70	9,622 31
General Hospital	"	850 00	6,278 87	419 32	2,473 21	10,021 40
General and Marine Hosp.	Collingwood	700 00	2,360 45	.....	942 22	4,002 67
Nichol's Hospital	Peterborough.	.....	2,759 00	4,072 00	4,035 00	10,866 00
St. Joseph's Hospital	"	75 00	2,474 50	.....	1,995 00	4,544 50
Hotel Dieu Hospital	Windsor	376 91	3,028 79	.....	37 35	3,443 05
St. Joseph's Hospital	Chatham	70 00	6,812 25	. .	12 50	6,894 75
General Hospital	"	420 00	6,248 42	. .	5 00	6,673 42
General Hospital	Stratford	500 00	4,710 58	269 75	1,212 46	6,692 79
Amasa Wood Hospital	St. Thomas	3,500 00	2,309 00	83 80	.....	5,892 80
General and Marine Hosp.	Owen Sound	1,225 00	2,571 24	132 54	855 57	4,784 35
General Hospital	Sudbury	.....	1,665 68	.....	1,629 40	3,295 08
St. Joseph's Hospital	"	.....	1,713 29	.....	2,470 59	4,183 88
General Hospital	Huntsville	.....	356 00	.....	2,997 38	3,353 38
Huntsville Hospital	"	.....	592 00	95 50	3,250 24	3,937 74
Woodstock Hospital	Woodstock	1,200 00	3,130 15	.....	474 45	4,804 60
Berlin and Waterloo Hosp	Berlin	2,800 00	1,764 87	26 48	752 02	5,343 37
General Hospital	Sarnia	1,000 00	5,143 87	270 00	1,551 53	7,965 40
Royal Victoria Hospital	Barrie	450 00	1,785 10	100 00	422 30	2,757 40
Hotel Dieu Hospital	Cornwall	575 00	1,952 12	.	1,662 58	4,189 70
General Hospital	"	800 00	2,076 33	.	1,894 46	4,770 79
National Sanitarium Hosp	Gravenhurst	338 00	24,493 02	.....	13,484 69	38,315 71
General Hospital	Rat Portage	423 45	1,765 13	.....	1,101 21	3,289 79
General Hospital	Parry Sound	75 00	882 50	.....	1,888 95	2,846 45
General Hospital	Sault St. Marie	300 00	6,971 29	.....	360 75	7,632 04
Victoria Hospital	Renfrew	593 33	734 00	.....	585 39	1,912 72
Victorian Hospital	Thessalon	.....	219 50	.....	388 50	608 00
Royal Alexandra Hospital	Fergus	400 00	2,718 26	.....	2,835 19	5,953 45
Total	.....	136,755 95	293,098 33	26,487 55	108,992 96	581,585 56

Hospital and records destroyed by fire.

TABLE VI.—Showing the basis upon which statutory aid is granted.

Name of Hospital.	Location.	Collective days' stay upon which Hospital grants are based.	Collective days' stay upon which computation of Refuge rate is based.	Computation of 7 cents per day, being refuge rates for inappropriate cases for Hospital treatment.		Amount of grant for 1902 on Hospital basis.		Amount payable to each Hospital from appropriation by the Legislature.	
				$	c.	$	c.	$	c.
General Hospital	Toronto	69,550	6,226	435	82	12,088	65	12,524	47
Grace Homeopathic Hospital	"	15,764	712	49	84	2,740	07	2,789	91
Hospital for Sick Children	"	39,063	.....	.....		6,789	65	6,789	65
St. Michael's Hospital	"	55,970	2,243	157	01	9,628	30	9,785	31
Western Hospital	"	23,262	1,122	78	54	4,038	80	4,117	34
The Orthopedic Hospital	"	11,927	1,332	93	24	2,073	16	2,166	40
City Hospital	Hamilton	13,741	3,701	259	07	2,388	45	2,647	52
St. Joseph's Hospital	"	7,699	589	41	23	1,338	30	1,379	53
General Hospital	Kingston	17,826	1,688	118	16	3,098	45	3,216	61
Hotel Dieu Hospital	"	30,098	2,132	149	24	5,231	44	5,380	68
General Protestant Hospital	Ottawa	14,426	9,711	679	77	2,507	52	3,187	29
Roman Catholic Hospital	"	24,895	10,523	736	61	4,327	10	5,063	71
Misericorde Maternity Hospit'l	"	5,620	5,185	362	95	976	90	1,339	85
Sick Children's Hospital	"	2,518	920	64	40	437	73	502	13
Maternity Hospital	"	2,252	78	5	46	401	50	406	96
St. Luke's General Hospital	"	17,002	1,219	85	33	2,955	25	3,040	58
General Hospital	London	18,976	4,157	290	99	3,318	35	3,609	34
St. Joseph's Hospital	"	4,410	66	4	62	766	65	771	27
General and Marine Hospital	St. Catharines	4,457	517	36	19	774	80	810	99
Galt Hospital	Galt	3,770	122	8	54	655	33	663	87
General Hospital	Guelph	15,122	1,104	77	28	2,628	50	2,705	78
St. Joseph's Hospital	"	6,804	321	22	47	1,182	70	1,205	17
General Hospital	Pembroke	7,723	281	19	67	1,342	43	1,362	10
General Hospital	Mattawa	.....	.....	.....		675	00	675	00
J. H. Stratford Hospital	Brantford	6,534	887	62	09	1,132	80	1,194	89
St. Joseph's Hospital	Port Arthur	8,865	498	34	86	1,540	80	1,575	66
Belleville Hospital	Belleville	5,787	487	34	09	1,005	82	1,039	91
St. Vincent de Paul Hospital	Brockville	13,097	1,196	83	72	2,276	52	2,360	24
General Hospital	"	5,401	905	63	35	938	83	1,002	18
General and Marine Hospital	Collingwood	2,382	226	15	82	414	10	429	92
Nichol's Hospital	Peterborough	3,550	816	57	12	617	10	674	22
St. Joseph's Hospital	"	9,158	2,163	151	41	1,591	93	1,743	34
Hotel Dieu Hospital	Windsor	3,405	89	6	23	591	90	598	13
St. Joseph's Hospital	Chatham	3,918	341	23	87	681	05	704	92
General Hospital	"	10,025	2,945	206	15	1,742	58	1,948	73
General Hospital	Stratford	2,663	75	5	25	462	95	468	20
Amasa Wood Hospital	St. Thomas	3,247	398	27	86	564	44	592	30
General and Marine Hospital	Owen Sound	5,460	1,006	70	42	949	08	1,019	50
General Hospital	Sudbury	2,790	108	7	56	485	00	492	56
St. Joseph's Hospital	"	4,791	91	6	37	832	80	839	17
General Hospital	Huntsville	7,601	68	4	76	1,321	25	1,326	01
Huntsville Hospital	"	7,063	72	5	04	1,227	75	1,232	79
Woodstock Hospital	Woodstock	3,535	189	13	23	614	30	627	53
Berlin and Waterloo Hospital	Berlin	3,274	285	19	95	569	15	589	10
General Hospital	Sarnia	6,762	247	17	29	1,175	40	1,192	69
Royal Victoria Hospital	Barrie	3,252	240	16	80	565	30	582	10
Hotel Dieu Hospital	Cornwall	14,034	68	4	76	2,439	40	2,444	16
General Hospital	"	5,572	2,819	197	33	968	55	1,165	88
National Sanitarium Hospital	Gravenhurst	18,546	5,893	412	51	3,223	65	3,636	16
General Hospital	Rat Portage	2,605	.....	.....		452	84	452	84
General Hospital	Parry Sound	2,478	2		14	430	80	430	94
General Hospital	Sault St. Marie	15,363	89	6	23	2,670	40	2,676	63
Victoria Hospital	Renfrew	1,370	82	5	74	238	15	243	89
Victorian Hospital	Thessalon	883	19	1	33	153	55	154	88
Royal Alexandra Hospital	Fergus	2,368	106	7	42	411	65	419	07
Totals for 1902		598,654	76,359	5,345	13	104,654	87	110,000	00
" " 1901		603,559	74,013	5,180	91	104,819	09	110,000	00

TABLE VII.—Shewing the cost of maintaining the Hospitals: also the average daily cost per patient, etc.

Name of Hospitals.	Location.	Collective days' stay, exclusive of infants, under one year of age.	Cost of diet rates.		Salaries, fuel, light, medicine, bedding, and all other ex penditures on maintenance account.		Total expenditures for maintenance.		Average cost of each patient per day.
			$	c.	$	c.	$	c.	
General Hospital	Toronto	91,767	30,965	52	54,875	82	85,841	34	.93
Grace Homœopathic Hospital	"	24,713	7,049	82	13,265	02	20,314	84	.82
Hospital for Sick Children	"	39,801	8,796	71	26,919	29	35,716	00	.89
St. Michael's Hospital	"	58,213	18,933	71	20,290	19	39,223	90	.67
Western Hospital	"	24,384	4,943	03	11,740	90	16,683	96	.68
The Orthopedic Hospital	"	11,927	2,208	11	11,235	29	13,443	40	1.12
City Hospital	Hamilton	31,483	9,348	08	23,023	75	32,371	83	1.02
St. Joseph's Hospital	"	11,102	4,306	49	3,847	12	8,153	61	.73
General Hospital	Kingston	25,739	7,035	17	10,274	99	17,310	16	.67
Hotel Dieu Hospital	"	33,979	9,311	21	10,226	49	19,537	70	.57
General Protestant Hospital	Ottawa	30,495	9,467	69	17,181	34	26,649	03	.87
Roman Catholic Hospital	"	40,202	9,317	00	11,230	66	20,547	66	.51
Misericorde Maternity Hospital	"	11,290	2,924	91	6,085	84	9,010	75	.79
Sick Children's Hospital	"	3,438	1,057	95	2,420	55	3,478	50	1.01
Maternity Hospital	"	2,330	1,231	05	2,382	77	3,613	82	1.55
St. Luke's General Hospital	"	18,221	4,905	44	11,414	42	16,319	86	.89
General Hospital	London	33,030	11,549	00	25,633	51	37,182	51	1.12
St. Joseph's Hospital	"	12,896	3,740	54	6,226	95	9,967	49	.77
General and Marine Hospital	St. Catharines	7,376	2,357	31	4,320	33	6,677	64	.90
Galt Hospital	Galt	6,803	1,708	44	4,515	44	6,223	88	.91
General Hospital	Guelph	20,079	4,083	86	10,993	82	15,077	68	.75
St. Joseph's Hospital	"	10,327	3,458	22	3,772	16	7,230	38	.60
General Hospital	Pembroke	9,901	1,858	05	3,259	38	5,117	43	.51
General Hospital	Mattawa	*							
J. H. Stratford Hospital	Brantford	9,590	2,219	40	7,769	43	9,988	83	1.04
St. Joseph's Hospital	Port Arthur	12,515	3,008	45	4,873	00	7,881	45	.62
Belleville Hospital	Belleville	7,874	1,961	78	4,517	93	6,479	71	.82
St. Vincent de Paul Hospital	Brockville	18,198	4,237	84	7,167	22	11,405	06	.62
General Hospital	"	12,342	3,126	34	8,124	74	11,251	08	.91
General and Marine Hospital	Collingwood	3,985	1,243	87	3,231	78	4,475	65	1.12
Nichol's Hospital	Peterborough	7,568	2,503	10	8,820	71	11,323	81	1.49
St. Joseph's Hospital	"	13,785	2,240	00	4,677	10	6,917	10	.50
Hotel Dieu Hospital	Windsor	6,759	1,689	55	2,810	96	4,500	51	.66
St. Joseph's Hospital	Chatham	9,803	2,658	27	5,423	35	8,081	62	.82
General Hospital	"	12,970	2,939	49	4,701	85	7,641	34	.58
General Hospital	Stratford	6,651	1,702	27	4,481	00	6,183	27	.93
Amasa Wood Hospital	St. Thomas	3,645	1,427	87	3,736	71	5,164	58	1.41
General and Marine Hospital	Owen Sound	6,466	1,286	62	2,985	54	4,272	16	.66
General Hospital	Sudbury	2,898	846	90	2,122	95	2,969	85	1.02
St. Joseph's Hospital	"	4,882	1,431	10	2,567	90	3,979	00	.81
General Hospital	Huntsville	7,669	2,317	11	2,865	45	5,182	56	.67
Huntsville Hospital	"	7,135	2,157	85	3,214	50	5,372	35	.75
Woodstock Hospital	Woodstock	3,724	1,594	37	3,845	93	5,440	30	1.46
Berlin and Waterloo Hospital	Berlin	3,559	1,111	24	4,204	07	5,315	31	1.49
General Hospital	Sarnia	7,009	3,088	19	5,317	75	8,405	94	1.20
Royal Victoria Hospital	Barrie	3,492	1,379	20	2,232	68	3,611	88	1.03
Hotel Dieu Hospital	Cornwall	14,102	3,183	28	2,973	57	6,156	85	.43
General Hospital	"	8,391	2,109	62	3,916	43	6,026	05	.71
National Sanatorium Hospital	Gravenhurst	24,439	12,970	88	24,049	24	37,020	12	1.51
General Hospital	Rat Portage	2,605	939	58	2,502	54	3,442	12	1.32
General Hospital	Parry Sound	2,480	1,144	94	1,987	12	3,132	06	1.26
General Hospital	Sault Ste. Marie	15,452	3,453	17	4,306	14	7,759	31	.50
Victoria Hospital	Renfrew	1,452	450	98	1,625	26	2,076	24	1.43
Victorian Hospital	Thessalon	902	239	98	700	53	940	51	1.04
Royal Alexandra Hospital	Fergus	2,474	1,442	83	4,356	39	5,799	22	2.34
Totals for 1902		804,312	232,663	38	441,245	83	673,909	21	84
" 1901		762,467	216,127	54	399,105	28	615,232	82	87⅛

* Hospital records destroyed by fire.

TABLE VIII. - Shewing the proportion of maintenance of Hospitals paid by the Government.

Name of Hospitals.	Location.	Revenues on maintenance account exclusive of Government grant.	Government grant in aid of maintenance.	Total revenue for maintenance.	Total expenditure for maintenance.	Percentage of Govt. grant to total for maintenance.
		$ c.	$ c.	$ c.	$ c.	
General Hospital	Toronto	73,444 24	12,303 61	85,747 85	85,841 34	.14
Grace Homeopathic Hospital	"	19,984 39	2,737 00	22,721 39	20,314 84	.12
Hospital for Sick Children	"	27,709 77	7,159 61	34,869 38	35,716 00	.20
St. Michael's Hospital	"	29,765 86	9,588 39	39,354 25	39,223 90	.21
Western Hospital	"	13,904 60	4,135 74	18,040 34	16,683 96	.23
The Orthopedic Hospital	"	10,814 93	990 90	11,805 83	13,443 40	.08
City Hospital	Hamilton	33,480 99	2,719 27	36,200 26	32,371 83	.08
St. Joseph's Hospital	"	5,969 95	1,579 95	7,549 90	8,153 61	.20
General Hospital	Kingston	14,728 72	3,200 73	17,929 45	17,310 16	.18
Hotel Dieu Hospital	"	9,743 38	5,599 44	15,342 82	19,537 70	.36
General Protestant Hospital	Ottawa	22,831 49	3,549 92	26,381 41	26,649 03	.13
Roman Catholic Hospital	"	11,835 82	5,735 20	17,571 02	20,547 66	.32
Misericorde Maternity Hosp'l.	"	7,438 48	1,565 27	9,003 75	9,010 75	.17
Sick Children's Hospital	"	3,306 47	362 49	3,668 96	3,478 50	.10
Maternity Hospital	"	3,436 13	328 49	3,764 62	3,613 82	.08
St. Luke's General Hospital	"	14,937 04	2,864 77	17,801 81	16,319 86	.16
General Hospital	London	32,357 41	3,614 77	35,972 18	37,182 51	.10
St. Joseph's Hospital	"	9,388 76	584 91	9,973 67	9,967 49	.06
General and Marine Hospital	St. Catharines.	6,555 58	921 05	7,476 63	6,677 64	.09
Galt Hospital	Galt	6,026 19	393 96	6,420 15	6,223 88	.06
General Hospital	Guelph	15,029 95	2,863 90	17,893 85	15,077 68	.16
St. Joseph's Hospital	"	5,739 54	1,346 17	7,085 71	7,230 38	.19
General Hospital	Pembroke	4,011 28	1,330 34	5,341 62	5,117 43	.24
General Hospital	Mattawa	.....	899 07	899 07	.....	...
J. H. Stratford Hospital	Brantford	7,012 40	1,334 60	8,347 00	9,988 83	.16
St. Joseph's Hospital	Port Arthur	5,348 93	1,323 61	6,672 54	7,881 45	.19
Belleville Hospital	Belleville	5,523 58	1,040 02	6,563 60	6,479 71	.16
St. Vincent de Paul Hospital	Brockville	9,622 31	1,857 23	11,479 54	11,405 06	.16
General Hospital	"	10,021 40	1,200 50	11,221 90	11,251 08	.10
General and Marine Hospital	Collingwood	4,002 67	534 28	4,536 95	4,475 65	.12
Nichol's Hospital	Peterborough	10,866 00	759 88	11,625 88	11,323 81	.06
St. Joseph's Hospital	"	4,544 50	1,482 39	6,026 89	6,917 10	.24
Hotel Dieu Hospital	Windsor	3,443 05	1,151 23	4,594 28	4,500 51	.24
St. Joseph's Hospital	Chatham	6,894 75	1,399 51	8,294 26	8,081 62	.17
General Hospital	"	6,673 42	1,910 84	8,584 26	7,641 34	.22
General Hospital	Stratford	6,692 79	1,014 02	7,706 81	6,183 27	.13
Amasa Wood Hospital	St. Thomas	5,892 80	592 70	6,485 50	5,164 58	.09
General and Marine Hospital	Owen Sound	4,269 35	700 88	4,970 23	4,272 16	.14
General Hospital	Sudbury	3,295 08	494 75	3,789 83	2,969 85	.13
St. Joseph's Hospital	"	4,183 88	872 05	5,055 93	3,999 00	.17
General Hospital	Huntsville	3,353 38	1,433 35	4,786 73	5,182 56	.29
Huntsville Hospital	"	3,937 74	1,215 06	5,152 80	5,372 35	.23
Woodstock Hospital	Woodstock	4,804 60	617 76	5,422 36	5,440 30	.11
Berlin and Waterloo Hospital	Berlin	5,343 37	873 35	6,216 72	5,315 31	.14
General Hospital	Sarnia	7,965 40	1,678 38	9,643 78	8,405 94	.17
Royal Victoria Hospital	Barrie	2,757 40	706 83	3,464 23	3,611 88	.20
Hotel Dieu Hospital	Cornwall	4,189 70	1,976 73	6,166 43	6,156 85	.32
General Hospital	"	4,770 79	1,428 84	6,199 63	6,026 05	.23
National Sanatorium Hospital	Gravenhurst	38,315 71	2,508 15	40,823 86	37,020 12	.06
General Hospital	Rat Portage	3,289 79	393 18	3,682 97	3,442 12	.10
General Hospital	Parry Sound	2,846 45	352 61	3,199 06	3,132 06	.11
General Hospital	Sault Ste. Marie	7,632 04	2,488 64	10,120 68	7,759 31	.24
Victoria Hospital	Renfrew	1,912 72	66 20	1,978 92	2,076 24	.03
Victorian Hospital	Thessalon	608 00	217 48	825 48	940 51	.26
Royal Alexandra Hospital	Fergus	5,953 45	.....	5,953 45	5,799 22	.....
Totals for 1902		578,408 42	110,000 00	688,408 42	673,909 21	.16
" 1901		489,857 37	110,000 00	583,098 17	615,317 68	.19

TABLE IX.—Shewing the comparative cost per patient daily in the different Hospitals in periods of five years.

Hospitals.	Location.	1890.	1895.	1900.	1902.
		cents.	cents.	cents.	cents.
General Hospital	Toronto	78.98	75.49	.91	.93
Grace Homœopathic Hospital	"	99.70	.84.92	.71	.82
Hospital for Sick Children	"		74.91	.82	.89
St. Michael's Hospital	"		51.53	.66	.67
Western Hospital	"			1.39	.68
The Orthopedic Hospital	"			1.16	1.12
City Hospital	Hamilton	74.24	89.61	1.	1.02
St. Joseph's Hospital	"		72.75	.58	.73
General Hospital	Kingston	53.60	75.58	.61	.67
Hotel Dieu Hospital	"	48.83	52.20	.43	.57
General Protestant Hospital	Ottawa	73.02	74.22	.83	.87
Roman Catholic Hospital	"	46.60	48.94	.64	.51
Misericorde Maternity Hospital	"	50.48	49.95	.70	.79
Sick Children's Hospital	"		76.53	.76	1.01
Maternity Hospital	"			1.97	1.55
St. Luke's General Hospital	"			.84	.89
General Hospital	London	88.29	85.32	.84	1.12
St. Joseph's Hospital	"		57.88	.98	.77
General and Marine Hospital	St. Catharines	81.06	65.85	.82	.90
Galt Hospital	Galt		88.10	1.11	.91
General Hospital	Guelph	77.69	82.68	.69	.75
St. Joseph's Hospital	"	43.57	32.28	.91	.60
General Hospital	Pembroke	67.00	61.63	.49	.51
General Hospital	Mattawa	77.90	54.51	.45	
I. H. Stratford Hospital	Brantford	59.78	77.06	.75	1.04
St. Joseph's Hospital	Port Arthur	60.00	1.20.71	.39	.62
Belleville Hospital	Belleville	85.70	92.70	.78	.82
St. Vincent de Paul Hospital	Brockville	28.23	53.50	.59	.62
General Hospital	"	97.46	1.21.66	.66	.91
General and Marine Hospital	Collingwood	1.01.00	71.02	1.14	1.12
Nichol's Hospital	Peterborough	2.11.00	88.65	1.29	1.49
St. Joseph's Hospital	"		74.07	.72	.50
The Hotel Dieu Hospital	Windsor		37.85	.65	.66
St. Joseph's Hospital	Chatham		76.17	.56	.82
General Hospital	"		56.20	.53	.58
General Hospital	Stratford		80.38	.95	.93
Amasa Wood Hospital	St. Catharines		1.23.65	1.24	1.41
General and Marine Hospital	Owen Sound		1.00.90	.63	.66
General Hospital	Sudbury		1.36.41	.77	1.02
St. Joseph's Hospital	"			1.05	.81
General Hospital	Huntsville			.57	.67
Huntsville Hospital	"			.63	.75
Woodstock Hospital	Woodstock			1.23	1.46
Berlin and Waterloo Hospital	Berlin			1.13	1.49
General Hospital	Sarnia			1.05	1.20
Royal Victoria Hospital	Barrie			.84	1.03
Hotel Dieu Hospital	Cornwall			.42	.43
General Hospital	"			.71	.71
National Sanatorium Hospital	Gravenhurst			1.29	1.51
General Hospital	Rat Portage			1.16	1.32
General Hospital	Parry Sound			1.05	1.26
General Hospital	Sault St. Marie			.54	.50
Victoria Hospital	Renfrew				1.43
Victorian Hospital	Thessalon				1.04
Royal Alexandra Hospital	Fergus				2.34
				.83½	.84

SEPARATE REPORTS.

GENERAL HOSPITAL, TORONTO.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment in all departments of the Hospital 1st October, 1901	267
Admitted	3,027
Births in the Hospital	138
Total number under treatment	3,432
Discharges including infants	2,981
Died	201
Under treatment, 30th Sept., 1902	250
Total	3,432

Of the 3,432 persons treated during the year, 159 males and 109 females were inmates of the Andrew Mercer Eye and Ear Infirmary, and 152 in the Burnside Lying-in branch. The latter number includes 73 male and 69 female children born in the Institution.

Sex.

Male	1,902
Female	1,530
	3,432

The following table gives a summary of certain diseases treated in the Toronto General Hospital during the year:

Typhoid fever	116
Typhus "	....
Puerperal "	....
Cerebro Spinal "	....
Diphtheria	8

Revenue.

From the Province of Ontario	$12,303 61
From the City of Toronto in payment of patients' maintenance.	13,838 70
From the County of York in payment of patients' maintenance.	177 30
From other municipalities of the Province	267 95
From paying patients themselves.	35,357 00
Income from property belonging to Hospital Trust	17,932 84
Subscriptions, donations and bequests of private individuals	386 06
From all other sources not above enumerated	5,484 39
Total	$35,747 85

Expenditures.

Butchers' meat, poultry and fish	$10,001 98
Butter	3,971 96
Eggs	1,504 30
Flour, bread and meal	2,984 39
Milk	3,774 09
Tea and coffee	1,359 00
Potatoes and other vegetable	3,513 46
Groceries and provisions, not enumerated	3,853 34
Drugs and medicines	4,544 20
Medical and surgical appliances	1,441 70
Bandages and dressings	2,691 58
Surgical instruments, ordinary	1,156 82
Beer, wine and spirits	562 04
Bedding, napery and general house furnishing	3,991 00
Brooms, brushes, mops, soap and cleaning appliances	896 93
Fuel	4,983 31
Light—gas, oil and candles	2,605 41
Water supply	484 30
Hay and straw	.....
Nurses' uniforms, badges, etc.	753 14
Ice supply	424 23
Salaries and wages	24,887 80
Insurance	202 30
Rent and taxes (emergency branch, etc.)	830 00
Contingencies	37 38
Repairs, ordinary	4,053 68
Telephone and elevator service	330 00
Total	$85,841 34
Government grant for 1902	$12,524 47

GRACE (HOMŒPATHIC) HOSPITAL, TORONTO.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment in the Hospital, 1st October, 1901	66
Admitted	1,000
Births in the Hospital	122
Total number under treatment	1,188
Discharges, including infants	1,047
Died	57
Under treatment, 30th Sept., 1902	84
	1,188

Sex.

Male	424
Female	764
	1,188

The following table gives a summary of certain cases treated in the Homœpathic Hospital, Toronto, during the year:

	No. of cases treated.
Typhoid fever	62
Typhus "	...
Puerperal "	....
Cerebro spinal "	....
Diphtheria	....

Revenue.

From the Government of Ontario	$ 2,737 00
From the City of Toronto, in payment of patients' maintenance	3,701 20
From paying patients themselves	15,353 19
Income from endowments or other property of the Hospital	.....
Subscriptions, donations and bequests of private individuals	930 00
From all sources not above enumerated	$ 53 30
Total	$22,774 69

Expenditures.

Butchers' meat	$ 2,184 11
Butter	827 94
Flour, bread and meal	734 61
Milk	1,259 42
Tea and coffee	208 73
Potatoes and other vegetables	467 46
Groceries, provisions not enumerated	1,367 55
Drugs and medicines	1,018 90
Medical and surgical appliances	666 18
Surgical instruments	32 88
Beer, wine and spirits	149 76
Bedding, napery and general house furnishings	566 32
Brooms, brushes, mops, soap and cleaning appliances	318 25
Fuel	1,683 27
Light—gas, oil and candles	337 33
Water supply	133 52
Hay and straw	9 00
Clothing for patients, including boots and shoes	22 10
Ice	221 94
Salaries and wages	5,375 38
Taxes and insurance	418 00
Contingencies	505 24
Repairs, ordinary	1,615 07
Advertising, stationery, etc	191 88
Total	$20,314 84
Government grant for 1902	$2,789 91

HOSPITAL FOR SICK CHILDREN, TORONTO.

The following summaries show the operations of the Institution during the year:

Movements of Inmates.

Under treatment, 1st Oct., 1901	128
Admitted	621
Total number under treatment	749
Discharged	568
Died	59
Under treatment, 30th Sept., 1902	122
	749

Sex.

Male	402
Female	347
	749

The following table gives a summary of certain diseases treated in the Hospital durthe year:

	No. of cases treated.
Typhoid fever	14
Typhus "	...
Cerebro spinal "	11
Diphtheria	....

Revenue.

From the Province of Ontario	$ 7,159 61
From the County of York	.....
From other municipalities	3,027 75
From the City of Toronto	7,500 00

From patients themselves for maintenance and treatment	$ 4,264 56
From property belonging to the Hospital	250 71
From subscriptions, donations, and bequests from private individuals	11,877 75
From all other sources not enumerated	789 00
Total	$34,879 38

Expenditures.

Butchers' meat and fish	$1,925 30
Butter	1,169 54
Flour bread and meal	69 78
Milk	$1,486 77
Tea and coffee	94 45
Potatoes and other vegetables	606 05
Groceries and provisions not enumerated	2,823 82
Drugs and medicines	1,531 14
Medical and surgical appliances	$ 805 96
Surgical instruments	205 61
Bedding, napery and general house-furnishing	
Brooms, brushes, maps, soap and cleaning appliances	157 66
Fuel	3,512 40
Light—gas, oil and candles	829 60
Water supply	955 39
Clothing for patients, including boots and shoes	1,853 05
Ice	201 56
Salaries and wages	12,062 31
Insurance and taxes	303 25
Contingencies	666 89
Repairs, ordinary	418 11
Advertising, stationery, etc	3,107 73
Telephone and electricity	308 63
Total	$35,716 00
Government grant for 1902	$6,789 65

ST. MICHAEL'S HOSPITAL, TORONTO.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment 1st Oct., 1901	171
Admitted	2,174
Births in the Hospital	80
Total number under treatment	2,425
Discharges, including infants	2,135
Died	124
Under treatment 30th Sept., 1902	166
	2,425

Sex.

Male	1,241
Female	1,184
	2,425

The following table gives a summary of certain cases treated in St. Michael's Hospital, Toronto, during the year:

	No. of cases treated.
Typhoid fever	90
Typhus	
Puerperal	
Cerebro spinal fever	
Diphtheria	

Revenue.

From the Government of Ontario	$ 9,588 39
From the City of Toronto in payment of patient's maintenance	12,720 40
From County of York	98 80
From other municipalities	30 65
From paying patients themselves	15,285 01
Subscriptions, donations and bequests of private individuals	705 00
From all other sources not above enumerated	926 00
	$39,354 25

Expenditures.

Butcher's meat, poultry and fish	$ 5,014 58
Butter and eggs	3,004 03
Flour, bread and meal	2,185 86
Milk	3,361 97
Tea and coffee	692 27
Potatoes, other vegetables and fruit	2,244 41
Groceries and provisions not enumerated	2,430 59
Drugs and medicines	2,666 54
Medical and surgical appliances	1,875 75
Surgical instruments	729 90
Beer, wine and spirits	175 32
Bedding, napery, and general house furnishing	2,079 75
Brooms, brushes, mops, soap and cleaning appliances	567 21
Fuel	2,342 10
Light—gas, oil, candles and electric light	1,215 47
Water supply	288 08
Clothing for patients, including boots and shoes	47 06
Ice	204 85
Salaries and wages	5,744 00
Taxes and insurance	360 64
Contingencies	41 03
Repairs, ordinary	1,676 26
Telephone service	65 20
Advertising, printing, stationery, etc, etc	220 03
Total	$39,223 90
Government grant for 1902	$ 9,785 31

WESTERN HOSPITAL, TORONTO.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	63
Admitted	844
Births in Hospital	22
Total number under treatment	929
Discharged	775
Died	66
Under treatment 30th September, 1902	88
	929

Sex.

Male	343
Female	586
	929

The following table gives a summary of certain cases treated in the Western Hospital, Toronto, during the year.

	No. of cases treated.
Typhoid fever	60
Typhus fever	..
Puerperal fever	2
Cerebro spinal fever	..
Diphtheria	.

Revenue.

From the Province of Ontario	$3,686 44
From the City of Toronto	3,918 00
From the County of York	.....
From the patients for maintenance and treatment	9,986 60
From subscriptions, donations and bequests from private individuals	.....
From other sources	.....
	$17,591 04

Expenditure.

Butchers' meat	906 59
Butter and eggs	413 84
Flour, bread and meal	351 32
Milk	807 17
Tea and coffee	80 25
Potatoes and other vegetables	131 84
Groceries and provisions not enumerated	2,252 02
Drugs and medicines	1,087 59
Medical and surgical appliances	643 41
Surgical instruments	66 70
Beer, wine and spirits	117 65
Bedding, napery and general house furnishings	477 51
Brooms, brushes, mops, soap and cleaning appliances	19 06
Fuel	1,095 20
Light—gas, oil and candles	627 65
Water	153 57
Ice supply	27 00
Salaries and Wages	3,752 62
Taxes, insurance and rent	1,686 38
Contingencies	1,680 59
Repairs, ordinary	306 00
Total	$16,683 96
Government grant for 1902	$ 4,117 34

THE ORTHOPEDIC HOSPITAL, TORONTO.

The following summaries show the operation of this Hospital during the official year:

Movements of Patients.

Number under treatment 1st Oct., 1901	30
Admitted	248
Births in the Hospital	....
Total number under treatment	278
Discharges	246
Died	1
Under treatment 30th Sept., 1902	31
	278

Sex.

Male	167
Female	111
	278

The following table gives a summary of certain cases treated in the Orthopedic Hospital, Toronto, during the year:

Bow legs	2
Club-foot and other deformities of feet	87
Congenital dislocation of the hips	2
Curvature of spine	80
Hip disease	27
Elbow, ankle and knee-joint disease	18
Deformity from spastic paralysis	14
Knock knee	3

Revenue.

From the Government of Ontario	$ 990 90
From the City of Toronto in payment of patients' maintenance	.....
From paying patients themselves	10,694 54

Subscriptions, donations and bequests of private individuals	$ 93 23
From all other sources not above enumerated	27 16
	$11,805 83

Expenditures.

Butchers' meat	$ 346 67
Butter	302 52
Flour, bread and meal	200 23
Milk	417 76
Tea and coffee	58 49
Potatoes and other vegetables	242 26
Groceries and provisions, not enumerated	640 18
Drugs and medicines	291 40
Medical and surgical appliances / Surgical instruments \	486 10
Beer, wine and spirits	4 90
Bedding, napery and general house furnishing	388 19
Fuel	422 00
Brooms, brushes, mops, soap and cleaning appliances	$ 50 59
Light—gas, oil and candles	396 36
Water supply	18 70
Clothing for patients	4 51
Ice	5 80
Salaries and wages	5,212 42
Taxes and insurance	157 35
Repairs, ordinary	45 76
Contingencies / Telephone service / Advertising, printing, stationery, etc., etc	891 83
Clothing for nurses and employees	56 67
Manufacturing dept., material and wages	2,802 71
Total	$13,443 40
Government grant for 1902	$ 2,166 40

CITY HOSPITAL, HAMILTON.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	101
Admitted	1,273
Births in the Hospital	37
Total number under treatment	1,411
Discharged	1,233
Died	114
Under treatment 30th September, 1902	64
	1,411

Sex.

Male	767
Female	644
	1,411

The following table gives a summary of certain diseases treated in the City Hospital, Hamilton, during the year:

Typhoid fever	57
Typhus fever	
Puerperal fever	
Cerebro spinal fever	
Diphtheria	62

Revenue.

From the Province of Ontario	$ 2,719 27
From the City of Hamilton	23,099 26
From the County of Wentworth	
From other municipalities	
From paying patients themselves	10,381 73
From all other sources	
Total	$36,200 26

Expenditure.

Butchers' meat	$2,070 73
Butter	2,568 88
Flour, bread and meal	772 92
Milk	1,004 14
Tea and coffee	417 55
Potatoes and other vegetables	654 64
Groceries and other provisions not enumerated	1,859 22
Drugs and medicines	1,797 32
Surgical instruments and appliances	851 50
Beer, wine and spirits	218 18
Bedding, etc	1,072 80
Brooms, brushes, mops, soap and cleansing appliances	297 34
Fuel	4,365 72
Light—gas, oil and candles	1,726 04
Water supply	350 00
Hay and straw	27 33
Clothing for patients, including boots and shoes	29 50
Ice	325 15
Salaries and wages	8 748 94
Taxes and insurance	850 04
Advertising, printing, stationery, etc	191 04
Contingencies	1,673 05
Repairs ordinary	499 80
Total	$32,371 83
Government grant for 1902	$ 2,647 52

ST. JOSEPH'S HOSPITAL, HAMILTON.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment 1st October, 1901	32
Admitted	424
Total number under treatment	456
Discharged	386
Died	31
Under treatment 30th September, 1902	39
	456

Sex.

Male	190
Female	266
	456

The following table gives a summary of certain diseases treated in St. Joseph's Hospital, Hamilton, during the year:

	No. of cases treated.
Typhoid fever	22
Typhus fever	..
Puerperal fever	.
Cerebro spinal fever	..
Diphtheria	
Smallpox	

Revenue.

From the Province of Ontario	$ 1,579 95
From the City of Hamilton	120 00
From the County of Wentworth	18 85
From paying patients themselves	4,854 60
Income from endowments, etc., or other property belonging to the Hospital	576 00
Subscriptions, donations and bequests in cash	215 00
Received from other sources	185 50
Total	$ 7,549 90

Expenditure.

Butchers' meat	$ 1,080 75
Butter	556 50
Flour, bread and meal	561 74
Milk	430 15
Tea and coffee	275 80
Potatoes and other vegetables	284 49
Groceries and other provisions not enumerated	1,117 06
Drugs and medicines	397 11
Medical and surgical appliances	152 46
Surgical instruments	32 59
Beer, wine and spirits	213 71
Bedding, etc	393 63
Brooms, brushes, mops, soap and cleaning appliances	27 63
Fuel	887 71
Light—gas, oil and candles	229 05
Water supply	40 00
Hay and straw	.....
Clothing for patients, including boots and shoes	117 99
Ice supply	23 55
Salaries and wages	296 15
Taxes, insurance and interest	335 02
Contingencies	217 17
Repairs, ordinary	483 35
Total	$ 8,153 61
Government grant for 1902	$ 1,379 53

GENERAL HOSPITAL, KINGSTON.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment 1st of October, 1901	73
Admitted	1,356
Births in Hospital	41
Total number under treatment	1,470
Discharged	1,353
Died	40
Under treatment 30th September, 1902	77
	1,470

Sex.

Male	706
Female	764
	1,470

The following table gives a Summary of certain diseases treated in the General Hospital, Kingston, during the year.

	No. of cases treated
Typhoid fever	37
Typhus fever	..
Puerperal fever	1
Cerebro and Spinal fever	.
Diphtheria	45

Revenue.

From the Province of Ontario	$ 3,200 73
From the Dominion Government	.....
From the County of Frontenac	600 00
From the City of Kingston	1,500 00
From other Municipalities of the Province	880 00

From Patients themselve for treatment	$ 8,547 69
Income from endowment and other property of Hospital	.....
Subscriptions, donations and bequests	1,913 28
From all other sources not enumerated	1,287 75
Total	17,929 45

Expenditure.

Butchers' meat	$ 1,559 98
Butter	933 56
Flour, bread and meal	605 21
Milk	690 06
Tea and Coffee	246 08
Potatoes and other vegetables	372 98
Groceries and Provisions, not enumerated	2,627 30
Drugs and medicines	836 75
Surgical instruments and appliances	$ 707 75
Beer, wine and spirits	63 20
Bedding, napery and General house furnishings	166 72
Brooms, brushes, mops, soap and cleaning appliances	207 16
Fuel	2,193 07
Light—Gas, oil and candles	567 25
Water supply and ice	120 50
Clothing for patients	2 15
Advertising, printing, stationary, etc., etc	.....
Salaries and wages	3,736 92
Insurance and taxes	40 50
Contingencies	1,004 14
Repairs, ordinary	628 88
Total	17,310 16
Government grant for 1902	$ 3,216 61

HOTEL DIEU HOSPITAL, KINGSTON.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Nunber under treatment, 1st October, 1901	90
Admitted	1,385
Total number under treatment	1,475
Discharged	1,341
Died	47
Under treatment, 30th September, 1902	87
	1,475

Sex.

Male	674
Female	801
	1,475

The following table gives a summary of certain diseases treated in the Hotel Dieu Hospital, Kingston, during the year:

	No. of cases treated.
Typhoid fever	14
Typhus fever	.
Puerperal fever	2
Cerebro spinal fever	3
Diphtheria	10

Revenue.

From the Province of Ontario	$ 5,599 44
From the City of Kingston	500 00
From the County of Frontenac	400 00
From patients themselves for maintenance and treatment	4,775 00
Income from investments	444 00
Subscriptions, donations and bequests	1,861 65
From other sources not enumerated	$ 1,762 73
Total	$15,342 82

Expenditure.

Butchers' meat	$1,997 80
Butter	1,500 56
Flour, bread and meal	950 69
Milk	1,187 90
Tea and coffee	334 84
Potatoes and other vegetables	507 64
Groceries and provisions not enumerated	2,831 78
Drugs and medicines	698 97
Medical and surgical appliances	82 63
Surgical instruments	136 58
Beer, wine and spirits	183 87
Bedding, napery and general house furnishings	534 68
Brooms, brushes, mops, soap and cleaning appliances	223 16
Fuel	2,900 00
Light—gas, oil and candles	791 33
Water supply	90 00
Hay and straw	168 43
Clothing for patients, including boots and shoes	445 09
Ice	34 53
Salaries and wages	1,077 00
Taxes and insurance	1,763 00
Coffins and funerals	34 00
Contingencies	211 85
Repairs, ordinary	851 27
Total	$19,537 60
Government grant for 1902	$ 5,380 68

GENERAL PROTESTANT HOSPITAL, OTTAWA.

The following summaries show the operations of the Hospital during the official year :

Movements of Patients.

Number under treatment, 1st October, 1901	76
Admitted	1,298
Births in the Hospital	..
Total number under treatment	1,374
Discharged	1,219
Died	59
Under treatment, 30th September, 1902	96
	1,374

Sex.

Male	711
Female	663
	1,374

The following table gives a summary of certain cases treated in the General Protestant Hospital, Ottawa, during the year :

	No. of cases treated.
Typhoid fever	72
Typhus fever	.
Peurperal fever	.
Cerebro spinal fever	..
Diphtheria	130

Revenue.

From the Province of Ontario	$3,549 92
From the City of Ottawa	5,081 05
From the County of Carleton	600 00
From other municipalities	215 00
From patients themselves for maintenance and treatment	9,570 99
Income and endowments, investments, etc	.....
Subscriptions, donations and bequests of private individuals	5,653 97
From other sources not enumerated	1,710 48
Total	$26.381 41

Expenditure.

Butcher's meat	$ 2,405 38
Butter and eggs	2,037 85
Flour, bread and meal	802 46
Milk	1 039 72
Tea and Coffee	245 60
Potatoes and other vegetables	397 28
Groceries and provisions not enumerated	2,539 40
Drugs and medicines	1 564 12
Medic l and surgical appliances	1,067 27
Surgical instruments	3 33
Beer, wine and spirits	118 77
Bedding, napery and general house furnishings	187 38
Brooms brushes, mops, soaps and cleaning appliances	186 69
Fuel	2,124 49
Light—gas, oil, candles and electric light	1,062 87
Water supply	1,232 53
Hay and straw	19 00
Printing and stationery	261 64
Ice	91 13
Salaries and wages	8,380 56
Taxes, insurance and interest	63 10
Contingencies	261 19
Repairs, ordinary	459 05
Postage, telegraphing, telephone, express, stationery, etc	98 22
Total	$26,649 03
Government grant for 1902	$ 3,187 29

ROMAN CATHOLIC HOSPITAL, OTTAWA.

The following summaries show the operations of this Hospital during the official year :

Movements of Patients.

Number under treatment, 1st October, 1901	116
Admitted	1,667
Total number under treatment	1,783
Discharged	1,555
Died	96
Under treatment, 30th September, 1902	132
	1,783

Sex.

Male	933
Female	850
	1,783

The following tables give a summary of certain diseases treated in the Roman Catholic Hospital, Ottawa, during the year:

	No. of cases treated.
Typhoid fever	82
Typhus	....
Puerperal fever	6
Cerebro spinal fever	....
Diphtheria	91

Revenue.

From the Province of Ontario	$ 5,735 20
From the City of Ottawa	2,062 00
From the County of Carleton	300 00
From other municipalities	.....
From patients themselves for maintenance and treatment	7,942 36

Income from property	$	100 00
Subscriptions, donations and bequests of private individuals		431 79
From other sources not enumerated		999 67
	$	17,571 02

Expenditure.

Butchers' meat	$	3,049 49
Butter		1,349 89
Flour, bread and meal		831 69
Milk		1,663 36
Tea and Coffee		389 65
Potatoes and other vegetables		242 43
Groceries and provisions not enumerated		1,790 49
Drugs and medicines		1,205 60
Medical and surgical appliances		977 75
Surgical instruments		416 11
Beer, wine and spirits		203 59
Bedding, napery and general house furnishings	$	928 49
Brooms, brushes, mops, soap and cleaning appliances		175 00
Fuel		2,224 01
Light—gas, oil, candles		364 96
Water supply		325 00
Clothing for patients, including boots and shoes		275 00
Ice		54 15
Salaries and wages and interest		1,884 63
Taxes and insurance		1,986 37
Coffins and funerals		.....
Contingencies		.....
Repairs, ordinary		210 00
Total	$	20,547 66
Government grant for 1902	$	5,063 71

MISERICORDE MATERNITY HOSPITAL, OTTAWA.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	39
Admitted	170
Births in Hospital	158
Total number under treatment	367
Discharged	318
Died	16
Under treatment, 30th September, 1902	33
	367

Sex.

Male	70
Female	297
	367

Revenue.

From the Province of Ontario	$	1,565 27
From the City of Ottawa		200 00
From the County of Carleton		50 00
From paying patients themselves		973 00
From subscriptions and donations		2,490 36
From other sources		3,725 12
	$	9,003 75

Expenditure.

Butchers' meat	$	854 91
Butter		475 74
Flour, bread and meal		437 90
Milk		307 99
Tea and coffee		96 77
Potatoes and other vegetables		319 95
Groceries and provisions not enumerated		431 65
Drugs and medicines		95 93
Medical and surgical appliances		50 75
Surgical instruments		.....
Beer, wine and spirits		51 40
Bedding, napery and general housefurnishings		929 98
Brooms, brushes, mops, soap and cleaning appliances		255 92
Fuel		510 20
Light—gas, oil and candles		209 29
Water supply		101 36
Hay and straw		56 29
Clothing for patients, including boots and shoes		57 20
Advertising, stationery, etc		269 00
Salaries and wages		974 60
Taxes, insurance		1,599 07
Coffins and funerals		53 00
Contingencies		272 65
Repairs, ordinary		486 00
Ice supply		23 20
Travelling expenses		90 00
Total	$	9,010 75
Government grant for 1902	$	1,339 85

HOSPITAL FOR SICK CHILDREN, OTTAWA.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	8
Admitted	60
Total number under treatment	68
Discharged	56
Died	4
Under treatment, 30th September, 1902	8
	68

Sex.

Male	36
Female	32
	68

The following table gives a summary of certain diseases treated in the Hospital for Sick Children, Ottawa, during the year:

	No. of cases treated.
Typhoid fever	3
Typhus	....
Puerperal	....
Cerebro spinal fever	....
Diphtheria	....

Revenue.

From the Province of Ontario	$ 362 49
From the City of Ottawa	200 00
From the County of Carleton	50 00
From other municipalities	.....
From patients themselves for maintenance and treatment	1,222 31
Income from endowments	.....
Subscriptions, donations and bequests from private individuals	$ 1,787 04
From other sources not enumerated	47 12
Total	$ 3,668 96

Expenditures.

Butchers' meat	$ 129 97
Butter	95 85
Flour, bread and meal	75 14
Milk	141 68
Tea and coffee	19 18
Potatoes and other vegetables	37 48
Groceries and provisions not enumerated	558 65
Drugs and medicines, Medical and surgical appliances, Surgical instruments	318 37
Beer, wine and spirits	6 55
Bedding, napery and general house furnishings	.....
Brooms, brushes, mops, soap and cleaning appliances	9 9½
Fuel	357 82
Light—gas, oil and candles	97 32
Water supply	12 68
Ice	6 00
Salaries and wages	1,303 09
Taxes, insurance and interest	9 00
Contingencies	73 15
Repairs, ordinary	226 65
Total	$ 3,478 50
Government grant for 1902	$ 502 13

MATERNITY HOSPITAL, OTTAWA.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment from 1st October, 1901	13
Admitted	171
Births in hospital	149
Total number under treatment	333
Discharged	301
Died	19
Under treatment 30th September, 1902	13
	333

Sex.

Male	77
Female	256
	333

Revenue.

From the Province of Ontario	$ 328 49
From the City of Ottawa	175 00
From the County of Carleton	50 00
From paying patients themselves	2,271 23
From subscriptions and donations	939 90
From other sources	
	$3,764 62

Expenditure.

Butchers' meat	$	298 58
Butter		171 18
Flour, bread and Meal		62 60
Milk		87 76
Tea and Coffee		53 16
Potatoes and other vegetables		166 57
Groceries and provisions not enumerated		391 20
Drugs and medicines		197 22
Medical and surgical appliances.		187 59
Bedding, napery and general house furnishings		159 82
Fuel	$	569 90
Light—gas, oil, candles and electric light		130 48
Water supply		70 15
Ice		9 50
Salaries and wages		869 17
Taxes and insurance		.....
Contingencies		150 27
Repairs, ordinary		38 67
Total	$	3,613 82
Government grant for 1902	$	405 96

ST. LUKE'S GENERAL HOSPITAL, OTTAWA.

The following summaries show the operations of this Hospital during the official year :

Movements of Patients

Number under treatment, 1st October, 1901	43
Admitted	906
Total number under treatment	949
Discharged	867
Died	37
Under treatment, 30th September, 1902	45
	949

Sex.

Male	471
Female	478
	949

The following table gives a summary of certain diseases treated in the St. Luke's General Hospital, Ottawa, during the year :

	No. of cases treated.
Typhoid fever	28
Typhus fever	..
Peurperal fever	..
Cerebro spinal fever	..
Diphtheria	..

Revenue.

From the Province of Ontario	$2,864 77
From the City of Ottawa	499 98
From the County of Carleton	.....
From paying patients themselves	10,265 92
Income from investments	200 60
From subscriptions and donations	3,720 64
From other sources	250 50
	$17,801 81

Expenditure.

Butchers' meat	$1,183 84
Butter	837 23
Flour, bread and meal	351 61
Milk	848 21
Tea and coffee	300 16
Potatoes and other vegetables	251 19
Groceries and provisions, not enumerated	1,133 20
Drugs and medicines	917 11
Medical and surgical appliances.	600 30
Surgical instruments	135 85
Beer, wine and spirits	87 98
Bedding, napery and general house-furnishings	444 03
Brooms, brushes, mops, soap and cleaning appliances	244 28
Fuel	1,287 42
Light—gas, oil, candles and electric light	363 40
Water supply	208 00
Clothing for patients, including boots and shoes	125 00
Ice	131 20
Salaries and wages	5,252 90
Taxes and insurance	37 50
Contingencies	1,273 81
Repairs ordinary	305 64
Total	$16,319 86
Government grant for 1902	$3,040 58

GENERAL HOSPITAL, LONDON.

The following summaries show the operations of this Hospital during the official year.

Movements of Patients.

Number under treatment, 1st October, 1901	111
Admitted	1,276
Births in the Hospital	35
Total number under treatment	1,422
Discharged	1,230
Died	100
Under treatment, 30th September, 1902	92
	1,422

Sex.

Male	688
Female	734
	1,422

The following table gives a summary of certain diseases treated in the General Hospital, London, during the year ;

	No. of cases treated.
Typhoid Fever	63
Typhus fever	.
Puerperal fever	..
Cerebro spinal fever	.
Diphtheria	129

Revenue.

From the Province of Ontario	$ 3,614 77
From the City of London	26,150 67
From the County of Middlesex, in payments for patients	1,865 80
From paying patients themselves	13,802 82
From income from property or investments	$ 444 28
Subscriptions, donations and bequests	.....
Total	$45,878 34

Expenditure.

Butchers' meat	$3,129 72
Butter	1,447 63
Flour, bread and meal	825 04
Milk	1,447 57
Tea and coffee	711 10
Potatoes and other vegetables	500 64
Groceries and provisions not enumerated	3,487 30
Drugs and medicines	3,039 23
Surgical instruments	.....
Medical and surgical appliances	915 78
Beer, wine and spirits	313 11
Bedding, napery and general house furnishings	2,536 53
Brooms, brushes, mops, soap and cleaning appliances	343 31
Fuel	2,508 46
Light—gas, oil and candles	1,215 66
Water	4 0 00
Hay and straw	.....
Clothing for patients	.....
Ice	176 17
Salaries and wages	9,374 11
Taxes and insurance	603 25
Contingencies	2,136 99
Repairs, ordinary	1,020 91
Total	$37,182,51
Government grant for 1902	$3,609 34

ST. JOSEPH'S HOSPITAL, LONDON.

The following summaries show the operations of this Hospital during the official year :

Movements of Patients.

Number under treatment, 1st October, 1901	38
Admitted	519
Births in Hospital	16
Total number under treatment	573
Discharged	507
Died	28
Under treatment, 30th September, 1902	38
	573

Sex.

Male	190
Female	383
	573

The following table gives a summary of certain diseases treated in the St. Joseph's Hospital, London, during the year :

	No. of cases treated.
Typhoid fever	15
Typhus fever	..
Puerperal fever	..
Cerebro spinal fever	..
Diphtheria	..

Revenue.

From the Province of Ontario	$ 584 91
From the City of London	.....
From the County of Middlesex	.....
From paying patients	7,844 01

Income from property		
Subscriptions, donations, etc.	$ 980	00
Other sources	564	75
Total	$9,973	67
Expenditures.		
Butchers' meat	$1,036	09
Butter	432	75
Flour, bread and meal	418	77
Milk	696	57
Tea and coffee	103	80
Potatoes and other vegetables	111	05
Groceries and provisions, not enumerated	941	51
Drugs and medicines	826	69
Surgical instruments		
Medical and surgical appliances	144	60
Beer, wine and spirits	42	05
Bedding, napery and general house furnishings	$ 638	52
Brooms, brushes, mops, soap and cleaning appliances	66	55
Fuel	985	32
Light, gas, oil and candles	386	56
Water	160	32
Telephone	46	90
Clothing for patients		
Ice	34	31
Salaries and wages	1,595	35
Taxes and insurance	274	00
Contingencies	370	53
Repairs, ordinary	655	25
Total	$ 9,967	49
Government aid for 1902	$ 771	27

GENERAL AND MARINE HOSPITAL, ST. CATHARINES.

The following summaries show the operations of this Hospital during the official year :

Movements of Patients.

Number under treatment 1st October, 1901	26
Admitted	304
Births in Hospital	11
Total number under treatment	341
Discharged	284
Died	38
Under treatment, 30th September, 1902	19
	341

Sex.

Male	180
Female	161
	341

The following table gives a summary of certain diseases treated in the General and Marine Hospital, St. Catharines, during the year :

	No. of cases treated.
Typhoid fever	47
Typhus fever	
Puerperal fever	
Cerebro spinal fever	
Diphtheria	

Revenue.

From the Province of Ontario	$ 921	05
From the Dominion Government		
From the City of St. Catharines	1,000	00
From the County of Lincoln	600	00
From patients themselves for maintenance and treatment	3,855	53
From endowments, investments or other property belonging to the Hospital	200	00
From subscriptions, bequests and donations of private persons		
From all other sources not above enumerated	$ 900	05
	$7,476	63

Expenditures.

Butchers' meat and fish	$ 767	45
Butter and eggs	472	61
Flour, bread and meal	198	65
Milk	351	20
Tea and coffee	122	61
Potatoes and other vegetables and fruit	129	12
Groceries and provisions not enumerated	315	67
Drugs and medicines	413	94
Medical and surgical appliances	375	12
Surgical instruments and dressing materials	17	98
Beer, wine and spirits	41	60
Bedding, napery and general housefurnishings	214	70
Brooms, brushes, mops, soap and cleaning appliances	110	71
Fuel	364	80
Light—gas, oil and candles	169	83
Water supply	30	00
Boots and shoes (nurses)	75	00
Ice	35	00
Salaries and wages	1,969	10
Taxes and insurance	19	60
Contingencies	316	70
Repairs, ordinary	166	25
Total	$6,677	64
Government grant for 1902	$ 810	99

GALT HOSPITAL, GALT.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment 1st October, 1901	23
Admitted	314
Births in Hospital	4
Total number under treatment	341
Discharged	300
Died	20
Under treatment 30th September, 1902	21
	341

Sex.

Male	142
Female	199
	341

The following table gives a summary of certain diseases treated in the Galt Hospital, Galt, during the year:

	No. of cases treated.
Typhoid fever	26
Typhus fever	....
Puerperal fever	....
Cerebro spinal fever	....
Diphtheria	....

Revenue.

From the Province of Ontario	$ 393 96
From the Town of Galt	1,000 00
From the County of Waterloo	1,000 00
From paying patients themselves	3,393 39
From subscriptions, bequests and donations of private individuals	$ 532 80
From other sources	100 00
Total	$ 6,420 15

Expenditure.

Butchers' meat	$ 472 51
Butter	235 92
Flour, bread and meal	237 13
Milk	109 76
Tea and coffee	12 50
Potatoes and other vegetables	107 66
Groceries and provisions not enumerated	532 96
Drugs, medicines and surgical appliances, etc	503 96
Beer, wine and spirits	32 35
Bedding, napery and general house furnishings	151 74
Brooms, brushes, mops, soap and cleaning appliances	92 26
Fuel	222 57
Light—gas, oil and candles	215 86
Water	124 92
Hay and straw	110 56
Clothes for patients, including boots and shoes	60 35
Ice	47 20
Salaries and wages	1,961 18
Taxes and insurance	26 40
Contingencies, advertising, postage, etc	163 07
Repairs, ordinary	803 02
Total	$ 6,223 88
Government aid for 1902	$ 663 87

GENERAL HOSPITAL, GUELPH.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	57
Admitted	642
Births in the Hospital	26
Total number under treatment	725
Discharged	642
Died	26
Under treatment, 30th September, 1902	57
	725

Sex.

Male	353
Female	372
	725

The following table gives a summary of certain diseases treated in the General Hospital, Guelph, during the year:

	No. of cases treated.
Typhoid fever	35
Typhus Fever	....
Puerperal fever	....
Cerebro spinal fever	....
Diphtheria	5

Revenue.

Received from the Province of Ontario	$2,863 90
From the City of Guelph	2,000 00
From the County of Wellington	1,200 00
From other municipalities of the Province	85 00

From paying patients	$ 9,012 56
Subscriptions, donations, etc	2,517 96
From sources not enumerated	214 45
Total	$17,893 87

Expenditure.

Butchers' meat	$ 1,350 26
Butter	659 94
Flour, bread and meal	400 44
Milk	29 31
Tea and coffee	168 60
Potatoes and other vegetables	86 38
Groceries and provisions not enumerated	1,388 93
Drugs and medicines / Surgical instrum'ts & appliances	1,204 74
Beer, wine and spirits	$ 213 84
Bedding, napery and general house furnishings	288 18
Brooms, brushes, mops, etc	.....
Fuel	3,317 96
Light—gas, oil and candles	639 29
Water supply	40 00
Hay and straw	109 78
Ice	40 00
Salaries and wages	4,117 31
Contingencies	987 45
Repairs, ordinary	1,035 27
Total	$15,077 68
Government aid for 1902	$ 2,705 78

ST. JOSEPH'S HOSPITAL, GUELPH.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	31
Admitted	363
Births in the Hospital	....
Total number under treatment	394
Discharged	340
Died	24
Under treatment, 30th September, 1902	30
	394

Sex.

Male	169
Female	225
	394

The following table gives a summary of certain diseases treated in the St. Joseph's Hospital, Guelph, during the year:

	No. of cases treated.
Typhoid fever	14
Typhus fever	....
Puerperal fever	....
Cerebro spinal fever	....
Diphtheria	2

Revenue.

From the Province of Ontario	$1,346 17
From the City of Guelph	200 00
From the County of Wellington	800 00
From other municipalities of the Province	.....
From paying patients	$ 4,588 79
Income from property	.....
Subscriptions, donations, etc	150 75
Other sources	.....
Total	$7,085 71

Expenditure.

Butchers' meat	$ 975 00
Butter	455 40
Flour, bread and meal	324 00
Milk	575 50
Tea and coffee	239 22
Potatoes and other vegetables	222 10
Groceries and provisions not enumerated	667 00
Drugs and medicines and surgical appliances	276 03
Beer, wine and spirits	175 00
Bedding, napery and general house furnishings	663 05
Brooms, brushes, mops, soap and cleaning appliances	153 53
Fuel	904 00
Light—gas, oil and candles	220 00
Stationery	42 06
Clothing for patients, including boots and shoes	.....
Water supply	50 00
Ice	.....
Salaries and wages	2 6 00
Taxes and insurance and interest	.....
Coffins and funerals	59 50
Contingencies	243 00
Repairs, ordinary	769 99
Total	$ 7,230 38
Government grant for 1902	$ 1,205 17

GENERAL HOSPITAL, PEMBROKE.

The following summaries show the operations of this Hospital during the official year:

Movement of Patients.

Number under treatment, 1st October, 1901	30
Admitted	374
Total number under treatment	404
Discharged	364
Died	18
Under treatment 30th September, 1902	22
	404

Sex.

Male	227
Female	177
	404

The following table gives a summary of certain diseases treated in the General Hospital, Pembroke, during the year:

	No. of cases treated.
Typhoid fever	74
Typhus "	..
Puerperal "	..
Cerebro spinal fever	..
Diphtheria	..

Revenue.

From the Province of Ontario	$1,330 34
From the County of Renfrew	200 00
From patients themselves	1,903 40
From subscriptions, bequests and donations of private individuals	$ 839 91
From all other sources	1,067 97
Total	$5,341 62

Expenditures.

Butchers' meat	$ 515 00
Butter	325 40
Flour, bread and meal	340 00
Milk	120 90
Tea and coffee	128 20
Potatoes and other vegetables	52 75
Groceries and provisions, not enumerated	375 80
Drugs, medicines and surgical appliances	371 88
Beer, wine and spirits	83 00
Bedding, napery and general house furnishings	440 15
Brooms, brushes, mops, soap and cleaning appliances	88 00
Fuel	250 75
Light—gas, oil and candles	125 20
Water	80 00
Hay and straw	125 00
Clothing for patients, including boots and shoes	28 40
Ice	22 00
Salaries and wages	1,240 00
Contingencies	250 00
Repairs, ordinary	135 00
	$5,117 43
Government grant for 1902	$ 1,362 10

THE JOHN H. STRATFORD HOSPITAL, BRANTFORD.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	40
Admitted	401
Births in the Hospital	28
Total number under treatment	469
Discharged	401
Died	27
Under treatment, 30th September, 1902	41
	469

Sex.

Male	219
Female	250
	469

The following table gives a summary of certain diseases treated in the John H. Stratford Hospital, Brantford, during the year:

	No. of cases treated.
Typhoid fever	68
Typhus "	..
Puerperal "	..
Cerebro spinal fever	.
Diphtheria	13

Revenue.

From the Province of Ontario	$1,334 60
From the City of Brantford	2,500 00
From the County of Brant	750 00
From patients for maintenance and treatment	3,762 40

From subscriptions, donations and bequests from private individuals	.....
From all other sources	.....
Total	$8,347 00

Expenditure.

Butchers' meat	$ 749 44
Butter	329 03
Flour, bread and meal	252 48
Milk	377 75
Tea and coffee	69 78
Potatoes and other vegetables	125 09
Groceries and provisions not enumerated	315 83
Drugs and medicines	938 25
Medical and surgical appliances	.....
Surgical instruments	.....
Beer, wine and spirits	$ 98 66
Bedding, napery and general house furnishings	864 33
Brooms, brushes, mops, soap and cleaning appliances	79 98
Fuel	1,629 75
Light—gas, oil and candles	342 04
Hay and straw	27 90
Clothing for patients, including boots and shoes	.....
Ice	45 00
Salaries and wages	2,819 79
Taxes and insurance	83 60
Contingencies	282 36
Repairs, ordinary	557 77
Total	$9,988 83
Government grant for 1902	$ 1,194 89

ST. JOSEPH'S HOSPITAL, PORT ARTHUR.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment 1st October, 1901	40
Admitted	468
Births in Hospital	3
Total	511
Discharged	437
Died	33
Under treatment 30th September, 1902	41
	511

Sex

Male	387
Female	124
	511

The following table gives a summary of certain diseases treated in the St. Joseph's Hospital, Port Arthur, during the year:

	No. of cases treated.
Typhoid fever	140
Typhus	1
Puerperal	..
Cerebro spinal fever	.
Diphtheria	9
Smallpox	4

Revenue.

From the Province of Ontario	$1,323 61
From the Town of Port Arthur	400 00
From the Town of Ft. William	.....
From other municipalities in the Province	.....
From paying patients themselves	$2,879 93
From subscriptions, donations, etc	902 00
From other sources	1,167 00
Total	$6,672 54

Expenditures.

Butchers' meat	$ 632 00
Butter	348 00
Flour, bread and meal	612 00
Milk	466 45
Tea and coffee	102 00
Potatoes and other vegetables	208 00
Groceries and provisions, not enumerated	640 00
Drugs and medicines	550 00
Surgical instruments and appliances	139 00
Beer, wine and spirits	97 00
Bedding, etc	185 00
Brooms, brushes, mops, soap and cleaning appliances	90 00
Fuel	750 00
Light—gas, oil and candles	160 00
Water supply	80 00
Ice supply	30 00
Hay and straw	170 00
Clothing for patients, including boots and shoes	60 00
Salaries and wages	1,092 00
Taxes and insurance	150 00
Coffins and funerals	.....
Contingencies	1,040 00
Repairs, ordinary	280 00
Total	$7,881 45
Government grant for 1902	$ 1,575 66

BELLEVILLE HOSPITAL, BELLEVILLE.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	22
Admitted	432
Births in Hospital	2
Total number under treatment	456
Discharged	421
Died	17
Under treatment, 30th September, 1902	18
	456

Sex.

Male	220
Female	236
	456

The following table gives a summary of certain diseases treated in the Belleville Hospital during the year:

	No. of cases treated
Typhoid fever	23
Typhus "	....
Puerperal "	....
Cerebro spinal fever	....
Diphtheria	8

Revenue.

From the Province of Ontario	$1,040 02
From the City of Belleville	549 25
From the County of Hastings	65 50
From patients for maintenance and treatment	2,844 61
Income from endowments, investments, etc.	.....
From subscriptions, donations and bequests from private individuals	1,829 12
From other sources	234 90
Total	$6,563 60

Expenditure.

Butchers' meat	369 93
Butter	355 02
Flour, bread and meal	196 95
Milk	289 60
Tea and coffee	82 50
Potatoes and other vegetables	183 04
Groceries and provisions, not enumerated	484 74
Drugs and medicines	585 12
Mecical and surgical appliances	324 49
Beer, wine and spirits	34 55
Bedding, napery & general house furnishings	269 96
Brooms, brushes, mops, soap and cleaning appliances	62 47
Fuel	928 10
Light—gas, oil and candles	367 29
Hay and straw	.....
Clothing for patients	31 83
Ice supply	34 00
Salaries and wages	1,411 87
Taxes and insurance	127 50
Contingencies	150 70
Repairs, ordinary	189 05
Total	6,479 71
Government grant for 1902	1,039 91

ST. VINCENT DE PAUL HOSPITAL, BROCKVILLE.

The operations of this Hospital during the period under report are indicated in the following summary:

Remaining under treatment, 1st October, 1901	49
Admitted	721
Number of births in the Hospital	....
Total number under treatment	770
Discharged	694
Died	29
Under treatment on 30th September, 1902	47
	770

Sex.

Male	368
Female	402
	770

The following table gives a summary of certain diseases treated in the St. Vincent de Paul Hospital, Brockville, during the year:

	No. of cases treated.
Typhoid fever	35
Typhus "	....
Puerperal "	....
Cerebro and spinal fever	....
Diphtheria	41
Smallpox	2

Revenue.

From the Province of Ontario	$1,857 23
From the Town of Brockville	400 00
From the Counties of Leeds and Grenville	300 00
From paying patients	4,943 61

From property belonging to the Hospital	$ 120 00
From subscriptions, bequests and donations of private individuals	1,009 44
From other sources, not enumerated	2,849 56
Total	$11,479 54

Expenditures.

Butchers' meat	$1,090 16
Butter	451 45
Flour, bread and meal	454 46
Milk	571 30
Tea and coffee	247 78
Potatoes and other vegetables	361 17
Groceries and provisions, not enumerated	1,061 59
Drugs and medicines	876 58
Medical and surgical appliances	$ 590 28
Beer, wine and spirits	252 88
Bedding, napery & general house furnishings	1,053 54
Brooms, brushes, mops, soap and cleaning appliances	149 21
Fuel	840 00
Light—gas, oil and candles	298 12
Water supply	29 78
Clothing for patients, including boots and shoes	60 41
Ice supply	30 00
Salaries and wages	231 90
Taxes, insurance and interest	629 17
Contingencies	424 83
Repairs, ordinary	1,700 52
Total	$11,405 06
Government grant for 1902	$2,360 24

THE BROCKVILLE GENERAL HOSPITAL.

The following summaries show the operations of this Hospital during the official year:

Number under treatment on the 30th September, 1901	35
Number admitted	455
Number of births	11
Total number under treatment	501
Discharged	428
Died	31
Remaining under treatment, 30th September, 1902	42
	501

Sex.

Male	190
Female	311
	501

The following table gives a summary of certain diseases treated in the Brockville General Hospital during year:

Typhoid fever	17
Typhus "	..
Puerperal "	..
Cerebro spinal fever	..
Diphtheria	4
Smallpox	..

Revenue.

From the Province of Ontario	$ 1,200 50
From the Town of Brockville	400 00
From the Counties of Leeds and Grenville	450 00
From other municipalities of the Province	.....
From paying patients	$ 6,278 87
From property belonging to the Hospital	419 32
From subscriptions, bequests and donations of private individuals	751 52
From other sources, not enumerated	1,721 69
Total	$11,221 90

Expenditure.

Butchers' meat	$ 840 18
Butter and eggs	486 54
Flour, bread and meal	365 47
Milk	267 15
Tea and coffee	160 00
Potatoes and other vegetables	267 21
Groceries and Provisions, not enumerated	739 79
Drugs and medicines	832 59
Medical and surgical appliances	426 19
Bedding, napery and general house furnishings	772 62
Brooms, brushes, mops, soap and cleaning appliances	.....
Fuel	1,127 00
Light—gas, oil and candles	532 44
Water supply	29 76
Ice supply	.....
Salaries and wages	3,376 06
Taxes and insurance	.....
Contingencies	765 77
Repairs, ordinary	262 31
Total	$11,251 08
Government grant for 1902	$ 1,002 18

GENERAL AND MARINE HOSPITAL, COLLINGWOOD.

The following summaries show the operation of the Hospital during the official year:

Movements of Patients.

Under treatment 1st October, 1901..	9
Admitted	181
Number of births	10
Total number under treatment..	200
Discharged	170
Died	12
Under treatment, 30th Sept., 1902..	18
	200

Sex.

Male	172
Female	98
	200

The following table gives a summary of certain cases treated in the General and Marine Hospital, Collingwood, during the year

	No. of cases treated.
Typhoid fever	24
Typhus	..
Puerperal	
Cerebro spinal fever	..
Diphtheria	1
Smallpox	

Revenue.

Received from the Province of Ontario	$ 534 28
From the Town of Collingwood..	200 00
From the County of Simcoe	$ 500 00
From paying patients	2,360 45
Subscriptions, donations, etc	783 49
From sources not enumerated	158 73
Total	$4,536 95

Expenditures.

Butchers' Meat	$ 322 27
Butter	95 18
Flour, bread and meal	89 60
Milk	111 06
Tea and coffee	33 25
Potatoes and other vegetables	32 67
Groceries and provisions, not enumerated	559 84
Drugs and medicines	327 83
Surgical appliances	68 83
Beer, wine and spirits	11 30
Hay and straw	26 91
Bedding, napery and general house furnishings	558 87
Brooms, brushes, mops, etc	11 00
Fuel	403 64
Light—gas, oil and candles	159 48
Water supply	24 00
Ice	9 00
Salaries and wages	1,376 05
Contingencies	234 59
Repairs, ordinary	20 28
Total	$4,475 65
Government grant for 1902	$ 429 92

THE NICHOL'S HOSPITAL, PETERBOROUGH.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October 1901	28
Admitted	331
Births in hospital	1
Total number under treatment.	360
Discharged	318
Died	26
Under treatment, 30th September, 1902	16
	360

Sex.

Male	188
Female	172
	360

The following table gives a summary of certain cases treated in the Nichol's Hospital, Peterborough, during the year:

	No. of cases treated.
Typhoid fever	42
Typhus fever	
Puerperal fever	
Cerebro spinal fever	
Diphtheria	9
Smallpox	1

Revenue.

From the Province of Ontario	$ 759 88
From the Town of Peterborough.	.....
From patients themselves for maintenance and treatment.	2,759 00
From property belonging to the Hospital endowments, etc	4,072 00

From subscriptions, donations, and bequests from private individuals	$ 4,000 00
From other sources	35 00
Total	$11,625 88

Expenditure.

Butchers' meat	$ 455 23
Butter	741 72
Flour, bread and meal	425 76
Milk	194 40
Tea and coffee	70 19
Potatoes and other vegetables	200 67
Groceries and provisions not enumerated	415 13
Drugs and medicines	908 29
Surgical instruments and appliances	463 29
Beer, wine and spirits	$ 139 30
Bedding, napery and general house furnishings	679 15
Brooms, brushes, mops, soap and cleaning appliances	62 00
Fuel	603 83
Light—gas, oil and candles	534 77
Water supply	282 52
Clothing for patients	5 25
Ice	70 90
Salaries and wages	3,107 32
Taxes and insurance	163 50
Hay and straw	19 42
Contingencies	565 67
Repairs, ordinary	1,215 50
Total	$11,323 81
Government grant for 1902	$ 674 22

ST. JOSEPH'S HOSPITAL, PETERBOROUGH.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October 1901	29
Admitted	475
Births in hospital	
Total number under treatment	504
Discharged	455
Died	14
Under treatment, 30th September, 1902	35
	504

Sex.

Male	226
Female	278
	504

The following gives a summary of certain cases treated in the St. Joseph's Hospital, Peterboro, during the year:

	No. of cases treated.
Typhoid fever	16
Typhus fever	4
Puerperal fever	
Cerebro spinal fever	
Diphtheria	60

Revenue.

From the Province	$ 1,482 40
From the Town of Peterborough	75 00
From other municipalities of the Province	
From patients themselves for maintenance and treatment	2,474 50
From property belonging to the Hospital	
From subscriptions, donations and bequest from private individuals	$ 685 00
From all other sources	1,310 00
Total	$ 6,026 90

Expenditure.

Butchers' Meat	$ 468 00
Butter and eggs	204 00
Flour, bread and meal	347 00
Milk	104 00
Tea and coffee	215 00
Potatoes and other vegetables	200 00
Groceries and provisions, not enumerated	702 00
Drugs and medicines	409 00
Surgical instruments and appliances	90 00
Beer, wine and spirits	80 00
Bedding, napery and general house furnishings	369 65
Brooms, brushes mops, soap and Cleaning appliances	100 00
Fuel	765 75
Light—gas, oil and candles	150 00
Water supply	65 00
Hay and straw	50 00
Clothing for patients	58 00
Ice	18 60
Salaries and wages	1,212 00
Taxes and insurance	130 00
Coffins and funerals	45 00
Contingencies	365 00
Repairs, ordinary	778 70
Total	$ 6,917 10
Government grant for 1902	$ 1,743 34

HOTEL DIEU HOSPITAL, WINDSOR.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October 1901	23
Admitted	313
Total number under treatment	336
Discharged	296
Died	18
Under treatment, 30th September, 1902	22
	336

Sex.

Male	162
Female	174
	336

The following table gives a summary of certain diseases treated in the Hotel Dieu Hospital, Windsor, during the year:

	No. of case treated.
Typhoid fever	22
Typhus fever	....
Puerperal fever	....
Cerebro spinal fever	....
Diphtheria	....

Revenue.

From the Province of Ontario	$ 1,151 23
From the Town of Windsor	347 77
From the County of Essex	29 14
From patients themselves for maintenance and treatment	3,028 79
From endowments, invesments, etc	.....
Subscriptions, donations and bequests	30 00
From other sources not enumerated	$ 7 35
Total	$ 4,594 28

Expenditure.

Butchers' meat	$ 410 16
Butter	240 19
Flour, bread and meal	258 01
Milk	232 26
Tea and coffee	64 13
Potatoes and other vegetables	166 12
Groceries and provisions not enumerated	318 68
Drugs and medicines	261 45
Medical and surgical appliances	170 22
Surgical instruments	9 00
Beer, wine and spirits	102 47
Bedding, napery and general housefurnishing	200 00
Brooms, brushes, mops, soap and cleaning appliances	152 31
Fuel	416 80
Light—gas, oil and candles	59 53
Water supply	12 00
Hay and straw	124 75
Clothing for patients, including boots and shoes	44 75
Ice	22 15
Salaries and wages	201 90
Taxes and insurance	573 72
Contingencies	178 16
Repairs ordinary	281 75
Total	$ 4,500 51
Government grant for 1902	$ 598 13

ST. JOSEPH'S HOSPITAL, CHATHAM.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	22
Admitted	466
Births in Hospital	20
Total under treatment	508
Discharged	456
Died	26
Under treatment, 30th September, 1902	26
	508

Sex.

Male	217
Female	291
	508

The following table gives a summary of certain cases treated in the St. Joseph's Hospital, Chatham, during the past year:

	No. of cases treated.
Typhoid fever	79
Typhus fever	....
Puerperal fever	3
Cerebro spinal fever	....
Diphtheria	8

Revenue.

From the Province of Ontario	$ 1,399 51
From the Town of Chatham	40 00
From the County of Kent	30 00
From patients for maintenance and treatment	6,812 25

From endowments, investments, etc.	
From subscriptions, donations and bequests from private individuals	12 50
From other sources	
Total	$ 8,294 26

Expenditure.

Butchers' meat	$ 695 83
Butter	322 30
Flour, bread and meal	322 18
Milk	412 68
Tea and Coffee	139 31
Potatoes and other vegetables	136 52
Groceries and provisions not enumerated	629 45
Drugs and medicines	174 96
Medical and surgical appliances	$ 68 75
Beer, wine and spirits	35 35
Bedding, napery and general house furnishings	798 07
Brooms, brushes, mops, soap and cleaning appliances	47 06
Fuel	462 96
Light—gas, oil and candles	244 34
Telephone	
Ice supply	26 71
Salaries and wages	1,050 90
Taxes and insurance	907 50
Contingencies	333 97
Coffins and funerals	22 00
Repairs, ordinary	1,250 78
Total	$8,081 62
Government grant for 1902	$ 704 92

GENERAL HOSPITAL, CHATHAM.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	30
Admitted	440
Births in Hospital	30
Total number under treatment	500
Discharged	434
Died	20
Under treatment, 30th September, 1902	46
	500

Sex.

Male	168
Female	332
	500

The following gives a summary of certain cases treated in the Chatham Hospital during the year:

	No. of cases treated.
Typhoid fever	35
Typhus fever	
Puerperal fever	
Cerebro spinal fever	
Diphtheria	16

Revenue.

From the Province	$ 1,910 84
From the Town of Chatham	72 00
From the County of Kent	384 00
From patients themselves for maintenance and treatment	6,248 42
From subscriptions, donations and bequests from private individuals	$ 5 00
From other sources	
Total	$ 8,584 26

Expenditure.

Butchers' meat	$ 715 89
Butter	395 99
Flour, bread and meal	258 16
Milk	409 10
Tea and coffee	140 00
Potatoes and other vegetables	265 61
Groceries and provisions, not enumerated	754 74
Drugs and medicines	111 00
Surgical instruments and appliances	77 12
Beer, wine and spirits	21 69
Bedding, napery and general house furnishings	628 44
Brooms, brushes, mops, soap and cleaning appliances	
Fuel	155 27
Light—gas, oil and candles	582 19
Water supply	57 60
Ice	30 00
Salaries and wages	1,850 50
Taxes and insurance	93 10
Contingencies	846 00
Repairs, ordinary	248 94
Total	$ 7,641 34
Government grant for 1902	$1,948 73

GENERAL HOSPITAL, STRATFORD.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment, 1st Oct., 1901	31
Admitted	249
Number of birth during the year	9
Total number under treatment	289
Discharged	248
Died	16
Under treatment, 30th Sept, 1902	25
	289

Sex.

Male	140
Female	149
	289

The following table gives a summary of certain diseases treated in the General Hospital, Stratford, during the year:

	No. of cases treated.
Typhoid fever	75
Typhus "	...
Puerperal "	....
Cerebro spinal "	....
Diphtheria	1
Smallpox	....

Revenue.

Received from the Province of Ontario	$1,014 02
From the City of Stratford	500 00
From the County of Perth	.....
From other municipalities of the Province	.....
From paying patients	4,710 58
Income from endowments, investments, etc	269 75
Subscriptions, donations, etc	566 36
From other sources	646 10
	7,706 81

Expenditures.

Butchers' meat	$ 558 58
Butter	224 56
Flour, bread and meal	155 09
Milk	149 56
Tea and coffee	80 97
Potatoes and other vegetables	30 48
Groceries and provisions not enumerated	503 03
Drugs and medicines	439 41
Surgical instruments and appliances	314 50
Beer, wine and spirits	68 53
Bedding, napery and general house furnishings	218 25
Brooms, brushes, mops, etc	106 34
Fuel	3 37
Light—gas, oil and candles	269 85
Water supply	50 00
Hay and straw	31 72
Clothing	.....
Ice	25 00
Salaries and wages	2,122 35
Taxes and insurance	29 50
Contingencies	537 32
Repairs, ordinary	264 86
Total	$ 6,183 27
Government grant for 1902	$ 468 20

AMASA WOOD HOSPITAL, ST. THOMAS.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st Oct., 1901	12
Admitted	161
Births in the Hospital	11
Total number under treatment	184
Discharged	162
Died	10
Under treatment, 30th Sept., 1902	12
	184

Sex.

Male	115
Female	69
	184

The following table gives a summary of certain diseases treated during the year:

Typhoid fever	13
Typhus "	....
Puerperal "	....
Cerebro spinal "	....
Diphtheria	....

Revenue.

From the Province of Ontario	$ 592 70
From the City of St. Thomas	3,500 00
From the County of Elgin	.....
From property belonging to Hospital	83 80
From paying patients themselves	2,309 00

Subscriptions, donations and bequests of private individuals in cash	
Other sources	
Total	$6,485 50

Expenditures.

Butchers' meat	$ 261 09
Butter	315 00
Flour, bread and meal	80 00
Milk	168 30
Tea and coffee	33 74
Potatoes and other vegetable	85 56
Groceries and other provisions not enumerated	484 18
Drugs and medicines	285 38
Surgical instruments and appliances	288 09
Beer, wine and spirits	$ 40 95
Bedding, etc	303 34
Brooms, brushes, mops, soap and cleansing appliances	39 50
Fuel	696 81
Light—gas, oil and candles	231 53
Water supply	26 00
Clothing for patients	1 35
Ice	7 50
Salaries and wages	1,597 32
Taxes and income	23 12
Contingencies	151 12
Repairs, ordinary	44 70
Total	$5,164 58
Government grant for 1902	$ 592 30

GENERAL AND MARINE HOSPITAL, OWEN SOUND.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	14
Admitted	249
Births in Hospital	4
Total number under treatment.	267
Discharged	238
Died	11
Under treatment, 30th September, 1902	18
	267

Sex.

Male	180
Females	87
	267

The following table gives a summary of certain diseases treated in the General and Marine Hospital during the year:

	No. of cases treated.
Typhoid fever	42
Typhus fever	....
Puerperal fever	....
Cerebro spinal fever	....
Diphtheria	1

Revenue.

From the Province of Ontario	$ 700 88
From the Dominion Government	
From the Town of Owen Sound	500 00
From the County of Grey	500 00
From other municipalities	225 00
From patients themselves for maintenance and treatment	2,571 24
From endowments, investments or other property belonging to the Hospital	132 54
From subscriptions, bequests and donations of private persons	121 87
From all other sources not enumerated	218 70
	$ 4,970 23

Expenditure.

Butchers' meat	$ 303 25
Butter	216 41
Flour, bread and meal	169 24
Milk	29 25
Tea and coffee	48 16
Potatoes and other vegetables	34 70
Groceries and provisions not enumerated	485 61
Drugs and medicines	70 05
Medical and surgical appliances	307 01
Beer, wine and spirits	14 20
Bedding, napery and general house furnishings	189 07
Brooms, brushes, mops, soap and cleaning appliances	40 86
Fuel	299 00
Light—oil and candles	180 36
Water supply	25 00
Hay and straw	108 59
Clothing for patients	
Ice	
Salaries and wages	1,372 23
Insurance and interest	73 95
Contingencies	126 66
Repairs, ordinary	178 56
Total	$ 4,272 16
Government grant for 1902	$ 1,019 50

GENERAL HOSPITAL, SUDBURY.

The following summaries show the operations of this Hospital during the official year :

Movements of Patients.

Number under treatment on the 1st October, 1901	7
Number admitted	164
Total number under treatment	171
Discharged	152
Died	12
Remaining under treatment on 30th September, 1902	7
	171

Sex.

Male	164
Female	7
	171

The following table gives a summary of certain diseases treated in the Sudbury General Hospital during the year :

	No. of cases treated.
Typhoid fever	11
Typhus fever	....
Puerperal fever	....
Cerebro spinal fever	....
Diphtheria	2
Smallpox	1

Revenue.

From the Province of Ontario	$ 494 75
From the Town of Sudbury	.....
From the District of Nipissing, etc	.....
From paying patients	1,665 68
From property belonging to the Hospital	.....
From subscriptions, bequests and donations of private individuals	$ 1,629 40
From other sources not enumerated	.....
Total	$ 3,789 83

Expenditure.

Butchers' meat	$ 201 50
Butter	85 35
Flour, bread and meal	98 70
Milk	160 30
Tea and coffee	50 25
Potatoes and other vegetables	90 05
Groceries and provisions, not enumerated	160 75
Drugs and medicines	109 00
Medical and surgical appliances	45 15
Beer, wine and spirits	15 00
Bedding, napery and general house furnishings	50 50
Brooms, brushes, mops, soap and cleaning appliances	16 75
Fuel	327 05
Light—gas, oil and candles	79 00
Water supply	33 00
Hay and straw	17 50
Ice supply	18 00
Salaries and wages	1,310 00
Taxes and insurance	.....
Coffins and funerals	15 00
Contingencies	15 00
Repairs, ordinary	92 00
Total	$ 2,969 85
Government grant for 1902	$ 492 56

ST. JOSEPH'S HOSPITAL, SUDBURY.

The following summaries show the operations of this Hospital during the official year :

Number under treatment on the 1st October, 1901	15
Number admitted	291
Total number under treatment	306
Discharged	271
Died	10
Remaining under treatment on the 30th September, 1902	25
	306

Sex.

Male	284
Female	22
	306

The following table gives a summary of certain diseases treated in the St. Joseph's Hospital, Sudbury, during the year :

	No. of cases treated.
Typhoid fever	16
Typhus fever	..
Puerperal fever	..
Cerebro Spinal fever	..
Diphtheria	..
Smallpox	1

Revenue.

From the Province of Ontario	$ 872 05
From the Town of Sudbury	.....
From the County of Nipissing in payment for patients	.....

From paying patients themselves	$ 1,713 29
From income from property or investments	.....
Subscriptions, donations and bequests	.....
Other sources	2,470 59
	$5,055 93

Expenditure.

Butchers' meat	$ 405 20
Butter	280 15
Flour, bread and meal	312 40
Milk	.....
Tea and coffee	65 00
Potatoes and other vegetable	95 60
Groceries and provisions not enumerated	272 75
Drugs and medicines	294 00
Medical and surgical appliances	$ 183 75
Beer, wine and spirits	62 00
Bedding, napery and general house furnishings	.....
Brooms, brushes, mops, soap and cleaning appliances	.....
Fuel	455 24
Light—gas, oil and candles	78 50
Water	34 00
Clothing for patients	82 75
Ice	25 00
Salaries and wages	1,100 00
Hay and straw	145 00
Contingencies	.....
Repairs, ordinary	107 66
Total	$ 3,999 00
Government grant for 1902	$ 839 17

GENERAL HOSPITAL, HUNTSVILLE.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment from 1st January, 1901	10
Admitted	377
Number of births	3
	390
Discharged	368
Died	8
Under treatment, 30th September, 1902	14
	390

Sex.

Male	342
Female	48
	390

The following table gives a summary of certain diseases treated in the General Hospital, Huntsville, during the year:

	No. of cases treated.
Typhoid fever	17
Typhus "	..
Puerperal "	..
Cerebro spinal fever	.
Diphtheria	3
Smallpox	..

Revenue.

From the Province of Ontario	$1,433 35
From the Village of Huntsville	.....
From the District of Muskoka	.....
From other municipalities	.....
From patients for maintenance and treatment	$ 356 00
From subscriptions, bequests and donations of private individuals	2,617 71
From all other sources	379 67
Total	$4,786 73

Expenditure.

Butchers' meat	$ 441 97
Butter	316 00
Flour, bread and meal	388 24
Milk	222 25
Tea and coffee	111 35
Potatoes and other vegetables	227 80
Groceries and provisions not enumerated	609 50
Drugs, medicines and surgical instruments	485 90
Beer, wine and spirits	40 00
Bedding, napery and general house furnishings	124 95
Brooms, brushes, etc	34 65
Fuel	500 00
Light—gas, oil and candles	75 00
Water supply	60 35
Ice	53 95
Salaries and wages	1,210 00
Taxes and insurance	125 00
Repairs, ordinary	50 00
Contingencies	105 65
Total	$5,182 56
Government grant for 1902	$ 1,326 01

HUNTSVILLE HOSPITAL.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment from 1st January, 1901	13
Admitted	316
Number of births	3
Total number under treatment	332
Discharged	312
Died	1
Under treatment, 30th September, 1902	19
	332

Sex.

Male	221
Female	111
	332

The following table gives a summary of certain diseases treated in the Huntsville Hospital during the year:

	No. of cases treated.
Typhoid fever	17
Typhus fever	..
Puerperal fever	..
Cerebro-spinal fever	.
Diphtheria	..
Smallpox	.

Revenue.

From the Province of Ontario	$1,215 06
From the Village of Huntsville	.....
From the District of Muskoka	.....
From other municipalities	.....
From patients for maintenance and treatment	$ 592 00
Income from endowments, investments, etc	95 50
From subscriptions, bequests and donations of private individuals	3,250 24
From all other sources	.....
Total	$5,152 80

Expenditures.

Butchers' meat	$ 505 15
Butter	289 20
Flour, bread and meal	245 05
Milk	188 30
Tea and coffee	120 15
Potatoes and other vegetables	185 00
Groceries and provisions not enumerated	625 00
Drugs, medicines and surgical instruments	560 95
Beer, wine and spirits	49 20
Bedding, napery and general house furnishings	121 10
Brooms, brushes, etc	40 55
Fuel	235 00
Light—gas, oil and candles	75 25
Water supply	40 20
Ice	30 25
Salaries and wages	1,662 00
Taxes and insurance	40 00
Repairs, ordinary	300 00
Contingencies	60 00
Total	$5,372 35
Government grant for 1902	$ 1,232 79

THE WOODSTOCK HOSPITAL.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, from 1st October, 1901	9
Admitted	147
Births	..
Total number under treatment	156
Discharged	119
Died	23
Under treatment 30th September, 1902	14
	156

Sex.

Male	76
Female	80
	156

The following table gives a summary of certain diseases treated in the Woodstock Hospital during the year:

	No. of cases treated.
Typhoid fever	21
Typhus fever	.
Puerperal fever	..
Cerebro-spinal fever	..
Diphtheria	.

Revenue.

From the Province of Ontario	$ 617 76
From the Town of Woodstock	600 00
From the County of Oxford	600 00
From paying patients themselves	3,130 15
Subscriptions, donations and bequests in cash	465 0

Income from endowments, etc., or other property belonging to the Hospital		
Received from other sources	$ 9	43
Total	$5,422	36

Expenditures.

Butchers meat	$ 418	01
Butter	184	85
Flour, bread and meal	106	10
Milk	202	13
Tea and coffee	71	90
Potatoes and other vegetables	43	05
Groceries and other provisions not enumerated	568	33
Drugs and medicine	299	99
Surgical appliances	$ 172	22
Beer, wine and spirits	19	90
Bedding, etc	17	93
Brooms, brushes, mops, soap and cleaning appliances	73	75
Fuel	566	43
Light—gas, oil and candles	467	42
Water supply		
Ice	36	04
Salaries and wages	1,735	80
Taxes and insurance	4	10
Contingencies	320	63
Repairs, ordinary	131	72
Total	$5,440	30
Government grant for 1902	$ 627	53

BERLIN AND WATERLOO HOSPITAL, BERLIN.

The following summaries show the operations of the Hospital during the official year:

Movements of Patients.

Number under treatment from 1st October, 1901	11
Admitted	139
Births in Hospital	5
Total number under treatment	155
Discharged	135
Died	10
Under treatment, 30th September, 1902	10
	155

Sex.

Male	84
Female	71
	155

The following table gives a summary of certain cases treated in the Berlin and Waterloo Hospital during the year:

	No. of cases treated.
Typhoid fever	16
Typhus fever	
Puerperal fever	
Cerebro spinal fever	
Diphtheria	5

Receipts.

From the Province of Ontario	$ 873	35
From the Town of Berlin	1,000	00
From the County of Waterloo	1,000	00
From the Town of Waterloo	800	00
From patients for maintenance and treatment	1,764	87
From endowments, investments, etc.	$ 26	48
From subscriptions, donations, and bequests from private individuals	15	00
From other sources	737	02
Total	$6,216	72

Expenditures.

Butchers' meat	$ 321	25
Butter	114	00
Flour, bread and meal	108	64
Milk	202	72
Tea and coffee	23	45
Potatoes and other vegetables		
Groceries and provisions not enumerated	341	18
Drugs and medicines	380	66
Medical and surgical appliances	165	56
Beer, wine and spirits	28	00
Bedding, napery, and general house furnishings	226	28
Brooms, brushes, mops, soap and cleaning appliances	37	60
Fuel	272	73
Light—gas, oil and candles	317	80
Water	108	18
Ice supply	60	00
Salaries and wages	1,855	69
Taxes and insurance	15	75
Contingencies	519	73
Repairs, ordinary	216	09
Total	$5,315	31
Government grant for 1902	$ 589	10

GENERAL HOSPITAL, SARNIA.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	19
Admitted	193
Births in Hospital	5
Total number under treatment	317
Discharged	270
Died	20
Under treatment, 30th September, 1902	27
	317

Sex.

Male	148
Female	169
	317

The following gives a summary of certain cases treated in the Hospital during the year:

	No. of cases treated.
Typhoid fever	80
Typhus fever	....
Puerperal fever	....
Cerebro spinal fever	....
Diphtheria	....

Revenue.

From the Province	$ 1,678 38
From the Town of Sarnia	500 00
From patients themselves for maintenance and treatment	5,143 87
From property belonging to the Hospital	270 00
From the County of Lambton	$ 500 00
From Subscriptions, donations, and bequests from private individuals	97 28
From all other sources	1,454 25
Total	$ 9,643 78

Expenditures

Butchers' meat	$ 821 32
Butter and eggs	562 74
Flour, bread and meal	198 72
Milk	472 04
Tea and Coffee	112 81
Potatoes and other vegetables	201 17
Groceries and provisions, not enumerated	719 39
Drugs and medicine	367 66
Surgical instruments and appliances	639 27
Beer, wine and spirits	77 95
Bedding napery and general house furnishings	261 85
Brooms, brushes, mops, soap and cleansing appliances	6 48
Fuel	86 93
Light—gas, oil, candles	422 25
Laundry, etc	897 31
Ice	.....
Salaries and wages	2,076 15
Taxes and insurance	.....
Contingencies	271 54
Repairs, ordinary	210 36
Total	$8,405 94
Government grant for 1902	$ 1,192 69

ROYAL VICTORIA HOSPITAL, BARRIE.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	15
Admitted	124
Births in Hospital	1
Total number under treatment	140
Discharged	114
Died	13
Under treatment, 30th September, 1902	13
	140

Sex.

Male	76
Female	64
	140

The following table gives a summary of certain cases treated in the Royal Victoria Hospital during the year:

	No. of cases treated.
Typhoid fever	16
Typhus fever	....
Puerperal fever	....
Cerebro spinal fever	....
Diphtheria	1

Revenue.

From the Province of Ontario	$ 706 83
From the Town of Barrie	200 00
From the County of Simcoe	250 00
From patients for maintenance and treatment	1,785 10
From endowments, investments, etc	100 00

From subscriptions, donations and bequests from private individuals	$	255 00
From other sources		167 30
Total	$	3,464 23

Expenditures.

Butchers' meat	$	345 49
Butter		119 98
Flour, bread and meal		113 00
Milk		152 52
Tea and coffee		29 04
Potatoes and other vegetables		97 83
Groceries and provisions, not enumerated		521 34
Drugs and medicines		164 81
Medical and surgical appliances		74 28
Beer, wine and spirits	$	3 70
Bedding, napery and general house furnishings		113 68
Brooms, brushes, mops, soap and cleaning appliances		4 02
Fuel		280 23
Light—gas, oil and candles		85 16
Water		19 00
Clothing for patients		3 00
Ice supply		6 00
Salaries and wages		1,010 29
Taxes and insurance		47 25
Contingencies		389 07
Repairs, ordinary		32 19
Total	$	3,611 88
Government grant for 1902	$	582 10

HOTEL DIEU HOSPITAL, CORNWALL.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	31
Admitted	486
Births in the Hospital	....
Total number under treatment	517
Discharges, including infants	466
Died	15
Under treatment, 30th September, 1902	36
	517

Sex.

Male	230
Female	287
	517

The following table gives a summary of certain cases treated in Hotel Dieu Hospital, Cornwall, during the year:

	No. of cases treated.
Typhoid fever	21
Typhus	...
Puerperal	...
Cerebro spinal fever	....
Diphtheria	....

Revenue

From the Province of Ontario	$	1,976 73
From the Town of Cornwall		200 00
From the Counties of Stormont, Dundas and Glengarry		300 00
From other municipalities in the Province	$	75 00
From paying patients themselves		1,952 12
From subscriptions, donations, etc		880 14
From other sources		782 44
Total	$	6,166 43

Expenditures.

Butchers' meat and fish	$	760 20
Butter		396 00
Flour, bread and meal		412 60
Milk		367 42
Tea and coffee		121 18
Potatoes and other vegetables		204 14
Groceries and provisions, not enumerated		921 74
Drugs and medicines		261 14
Medical and surgical appliances		280 04
Surgical instruments		2 51
Beer, wine and spirits		36 40
Bedding napery and general house furnishings		484 00
Brooms, brushes, mops, soap and cleaning appliances		80 10
Fuel		780 00
Light—gas, oil and candles		246 24
Clothing for patients, including boots and shoes		....
Ice		14 00
Salaries and wages		290 00
Taxes and insurance		174 00
Contingencies		260 14
Repairs, ordinary		65 00
Total	$	6,156 85
Government grant for 1902	$	2,444 16

GENERAL HOSPITAL, CORNWALL.

The following summaries show the operations of this Hospital during the official year:

Movement of Patients.

Number under treatment 1st October, 1901	14
Admitted	291
Births in the Hospital	....
Total number under treatment	305
Discharged	263
Died	19
Under treatment 30th September, 1902	23
	305

Sex.

Male	157
Female	148
	305

The following table gives a summary of certain cases treated in the General Hospital, Cornwall, during the year:

	No. of cases treated.
Typhoid fever	11
Typhus fever	....
Puerperal	....
Cerebro spinal fever	....
Diphtheria	....

Revenue.

From the Province of Ontario	$1,428 84
From the Town of Cornwall	400 00
From counties of Stormont, Dundas and Glengarry	300 00
From other municipalities in the Province	100 00
From paying patients themselves	2,076 33
From subscriptions, donations, etc.	$ 1,881 82
From other sources	12 64
	$6,199 63

Expenditure.

Butchers' meats	$ 595 98
Butter	240 22
Flour, bread and meal	268 79
Milk	272 02
Tea and coffee	96 58
Potatoes and other vegetables	163 97
Groceries and provisions, not enumerated	472 06
Drugs and Medicines	208 56
Medical and surgical appliances	119 82
Surgical instruments	4 08
Beer, wine and spirits	29 13
Bedding, napery and general house furnishings	310 95
Brooms, brushes, mops, soap and cleaning appliances	70 17
Fuel	631 00
Light—gas, oil and candles	221 39
Clothing for patients, including boots and shoes	.....
Grounds, etc	248 02
Salaries and wages	1,785 78
Insurance	.....
Contingencies	89 29
Repairs, ordinary	47 84
Printing, stationery, postage, telephone, etc	150 40
Total	$6,026 05
Government grant for 1902	$ 1,165 88

NATIONAL SANATORIUM FOR CONSUMPTIVES, GRAVENHURST.

The following summaries show the operations of this Hospital during the official year:

Movement of Patients.

Number under treatment 1st October, 1901	61
Admitted	190
Total number under treatment	251
Discharged	142
Died	5
Under treatment 30th September, 1902	104
	251

Sex.

Male	136
Female	115
	251

Revenue.

From the Province of Ontario	$2,508 15
From the City of Toronto in payment of patients' maintenance	338 00
From paying patients themselves	24,493 62

From subscriptions, bequests and donations of private individuals	$10,189 21
From other sources	3,295 48
Total	$40,823 86

Expenditure.

Butchers' meat	$ 4,994 83
Butter and eggs	1,792 07
Flour bread and meal	644 12
Milk	1,801 50
Tea and coffee	298 41
Potatoes and other vegetables	1,617 42
Groceries and provisions, not enumerated	1,822 53
Drugs, medicines and surgical appliances, etc.	994 75
Disinfectants	255 01
Beer, wine and spirits	1 70
Bedding, napery, and general house furnishings	1,715 91
Brooms, brushes, mops, soap and cleaning appliances	$ 357 21
Fuel	1,824 57
Light—oil, candles and electric light	581 47
Travelling expenses	212 18
Horse feed	768 04
Ice	70 48
Salaries and wages	10,996 36
Insurance	450 36
Freight and express	1,169 63
Advertising, printing, postage, etc	2,728 66
Contingencies	1,321 26
Repairs, ordinary	601 65
Total	$37,020 12
Government aid for 1902	$3,636 16

GENERAL HOSPITAL, RAT PORTAGE.

The following summaries show the operations of this Hospital during the official year:

Movement of Patients.

Number under treatment 1st October, 1901	9
Admitted	100
Total number under treatment	109
Discharged	99
Died	8
Under treatment 30th September, 1902	2
	109

Sex.

Male	92
Female	17
	109

The following table gives a summary of certain diseases treated in the General Hospital, Rat Portage, Rainy River District:

	No. of cases treated
Typhoid fever	53
Typhus "	....
Puerperal "	....
Cerebro spinal fever	....
Diphtheria	....

Revenue.

From the Province of Ontario	$393 18
From the Town of Rat Portage	423 45
From other municipalities	.....
From paying patients	$ 1,765 13
Income from property	.....
Subscriptions, donations, etc.	971 21
Other sources	130 00
Total	$ 3,682 97

Expenditure.

Butchers' meat	$ 161 45
Butter	105 15
Flour, bread and meal	80 09
Milk	81 83
Tea and coffee	70 80
Potatoes and other vegetables	50 10
Groceries and provisions, not enumerated	390 16
Drugs and medicines and surgical appliances	239 45
Beer, wine and spirits	36 35
Bedding, napery and general house furnishings	193 81
Brooms, brushes, mops, soap and cleaning appliances	45 00
Fuel	160 96
Light—gas, oil and candles	93 20
Water supply	.....
Ice	41 75
Salaries and wages	1,509 10
Contingencies	103 25
Repairs, ordinary	79 67
Total	$ 3,442 12
Government grant for 1902	$ 452 84

GENERAL HOSPITAL, PARRY SOUND.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment 1st October, 1901	7
Admitted	156
Births in Hospital	2
Total number under treatment	165
Discharged	158
Died	5
Under treatment 30th September, 1902	7
	165

Sex.

Male	125
Female	40
	165

The following table gives a summary of certain diseases treated in the General Hospital, Parry Sound, during the year:

	No. of cases treated.
Typhoid fever	24
Typhus fever	....
Puerperal fever	....
Cerebro spinal fever	....
Diphtheria	....

Revenue.

From the Province of Ontario	$ 352 61
From the District of Parry Sound	75 00
From paying patients themselves	882 50
From subscriptions, bequests and donations of private individuals	.....
From other sources	$ 1,888 95
Total	$ 2,199 06

Expenditure.

Butchers' meat	$ 266 24
Butter	176 80
Flour, bread and meal	163 00
Milk	100 00
Tea and coffee	49 40
Potatoes and other vegetables	37 35
Groceries and provisions, not enumerated	352 15
Drugs, medicines and surgical appliances, etc	293 50
Surgical instruments	100 22
Beer, wine and spirits	12 50
Bedding, napery and general house furnishings	52 00
Brooms, brushes, mops, soap and cleaning appliances	65 60
Fuel	280 00
Light—gas, oil and candles	111 80
Water	22 00
Ice	17 50
Salaries and wages	1,007 00
Repairs, ordinary	25 00
Total	$ 3,132 06
Government aid for 1902	$ 430 94

GENERAL HOSPITAL, SAULT STE. MARIE.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	43
Admitted	746
Total number under treatment	789
Discharged	692
Died	32
Under treatment, 30th September, 1902	65
	789

Sex.

Male	656
Female	133
	789

The following table gives a summary of certain cases treated in the General Hospital, Sault Ste. Marie, during the year:

	No. of cases treated
Typhoid fever	185
Typhus fever	....
Puerperal fever	3
Cerebro spinal fever	....
Diphtheria	....

Revenue.

From the Province of Ontario	$ 2,488 64
From the City of Sault Ste. Marie	300 00
From other municipalities	.....
From patients themselves for maintenance and treatment	6,971 29

Income and endowments		
Subscriptions, donations and bequests of private individuals	$ 360	75
From other sources not enumerated		
Total	$10,120	80

Expenditure.

Butchers' meat	$ 1,102	15
Butter	593	87
Flour, bread and meal	408	50
Milk	575	20
Tea and coffee	175	80
Potatoes and other vegetables	56	40
Groceries and provisions not enumerated	541	25
Drugs and medicines / Medical and surgical appliances	709	33
Surgical instruments	$ 458	51
Beer, wine and spirits	204	00
Bedding, napery and general house furnishings	241	75
Brooms, brushes, mops, soap and cleaning appliances	63	00
Fuel	438	47
Light—gas, oil and candles	92	00
Water supply	43	00
Hay and straw	93	29
Clothing for patients, including boots and shoes	81	35
Ice	25	00
Salaries and wages	1,558	29
Contingencies	247	35
Repairs, ordinary	50	80
Total	$ 7,759	31
Government grant for 1902	$ 2,676	63

VICTORIA GENERAL HOSPITAL, RENFREW

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	5
Admitted	93
Births in Hospital	3
Total under treatment	101
Discharged	92
Died	5
Under treatment, 30th Sept., 1902	4
	101

Sex.

Male	52
Female	49
	101

The following table gives a summary of certain cases treated in the Victoria General Hospital, Renfrew, during the past year:

	No. of cases treated.
Typhoid fever	7
Typhus fever	...
Puerperal fever	....
Cerebro spinal fever	....
Diphtheria	....

Revenue.

From the Province of Ontario	$ 66	20
From the Town of Renfrew	300	00
From the County of Renfrew	283	33
From other municipalities	10	00
From patients for maintenance and treatment	734	00
From subscriptions, donations and bequests from private individuals	$ 515	24
From all other sources	70	15
Total	$ 1,978	92

Expenditure.

Butchers' meat	$ 106	10
Butter	54	34
Flour, bread and meal	30	91
Milk	54	00
Tea and coffee	18	49
Potatoes and other vegetables	20	37
Groceries and provisions, not enumerated	166	77
Drugs and medicines	74	97
Medical and surgical appliances	74	83
Beer, wine and spirits	1	50
Bedding, napery and general house furnishings	42	83
Brooms, brushes, mops, soap and cleaning appliances	26	45
Fuel	191	19
Light—gas, oil and candles	50	73
Water supply	20	73
Ice supply	...	...
Salaries and wages	957	14
Clothing for patients		75
Contingencies	69	16
Repairs, ordinary	114	98
Total	$ 2,076	24
Government grant for 1902	$ 243	89

VICTORIAN HOSPITAL, THESSALON.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	2
Admitted	36
Births in Hospitals	....
Total number under treatment	38
Discharged	30
Died	1
Under treatment, 30th Sept., 1902	7
	38

Sex.

Male	29
Female	9
	38

The following gives a summary of certain cases treated in the Thessalon Hospital during the year:

	No. of cases treated.
Typhoid fever	6
Typhus fever	....
Puerperal fever	....
Cerebro spinal fever	....
Diphtheria	....

Receipts.

From the Province	$ 217 48
From the Town of Thessalon	.....
From patients themselves for maintenance and treatment	219 50
From subscriptions, donations, and bequests from private individuals	$159 50
From other sources	229 00
Total	$ 825 48

Expenditure.

Butchers' meat	$ 52 64
Butter	29 01
Flour, bread and milk	16 11
Milk	26 50
Tea and coffee	8 23
Potatoes and other vegetables	11 95
Groceries and provisions, not enumerated	95 54
Drugs and medicines	6 90
Surgical instruments and appliances	10 55
Beer, wine and spirits	.....
Bedding, napery and general house furnishings	41 92
Brooms, brushes, mops, soap and cleaning appliances	2 75
Fuel	180 82
Light—gas, oil and candles	3 20
Water supply	15 00
Clothing for patients	.....
Ice	15 75
Salaries and wages	180 03
Taxes and insurance	.....
Rent	168 00
Contingencies	73 21
Repairs, ordinary	2 40
Total	$ 940 51
Government grant for 1902	$ 154 88

ROYAL ALEXANDRA HOSPITAL, FERGUS.

The following summaries show the operations of this Hospital during the official year:

Movements of Patients.

Number under treatment, 1st October, 1901	....
Admitted	126
Births in Hospital	3
Total number under treatment	129
Discharged	106
Died	3
Under treatment, 30th September, 1902	20
	129

Sex.

Male	70
Female	59
	129

The following table gives a summary of certain cases treated in the Royal Victoria Hospital during the year:

	No. of cases treated.
Typhoid fever	2
Typhus fever	....
Puerperal fever	....

Cerebro spinal fever	....
Diphtheria	....

Revenue.

From the Province of Ontario	.....
From the County of Wellington	$ 400 00
From patients for maintenance and treatment	2,718 26
From endowments, investments, etc.	.....
From subscriptions, donations and bequests from private individuals	184 40
From other sources	2,650 79
	$ 5,953 45

Expenditure.

Butchers' meat	$ 311 75
Butter	119 39
Flour, bread and meal	185 46
Milk	142 00
Tea and coffee	50 46
Potatoes and other vegetables	60 37
Groceries and provisions, not enumerated	$ 573 40
Drugs and medicines	400 92
Medical and surgical appliances	109 08
Beer, wine and spirits	.....
Bedding, napery and general house furnishings	70 02
Brooms, brushes, mops, soap and cleaning appliances	30 00
Fuel	359 55
Light—gas, oil and candles	200 00
Water	86 50
Clothing for patients	5 25
Ice supply	32 50
Salaries and wages	2,648 97
Taxes and insurance	28 20
Contingencies	310 40
Repairs, ordinary	25 00
Hay and straw	50 00
Total	$ 5,799 22

Government grant for 1902	$ 419 07

HOUSES OF REFUGE.

The usual information obtained from each Refuge, in respect of sex, and previous residence of the inmates has been summarized as under:

Sex.

Male	1,769	
Female	3,105	
		4,874

Previous Residence.

Received from cities and towns in which Refuges are located	3,568	
Received from counties in which the Refuges are located	600	
Received from other counties in the Province	639	
Immigrants and foreigners	67	
		4,874

TABLE No. 1.

SCHEDULE B.—Table I gives a summary of the operations of each Refuge during the year.

Name of Refuge.	Location.	Number of persons in the Refuges on 1st October, 1901.	Number admitted to Refuges during the year.	Total number under lodgement during the year ending the 30th Sept., 1902.	Number discharged during the year.	Number of deaths during the year.	Number of persons remaining in Refuge on 30th Sept., 1902.
Home of Industry	Toronto	126	176	302	164	26	112
House of Providence	"	455	317	772	289	53	430
Home for Incurables	"	133	42	175	11	40	124
St. John's Hospital	"	18	167	185	160	7	18
Convalescent Home	"	13	208	221	199	.....	22
The Church Home	"	23	5	28	5	1	22
The Haven	"	84	391	475	369	18	88
Old Folks' Home	"	25	8	33	6	3	24
Good Shepherd Female Refuge	"	89	49	138	41	1	96
Aged Men's Home	"	20	10	30	3	4	23
Aged Women's Home	"	45	23	68	5	9	54
House of Refuge	Hamilton	102	37	139	34	15	90
Home for Aged Women	"	32	8	40	1	3	36
St. Peter's Home	"	26	18	44	16	5	23
House of Industry	Kingston	42	60	102	54	2	46
House of Providence	"	171	90	261	75	24	162
Home for Friendless Women	"	20	39	59	28	8	23
Roman Catholic House of Refuge	London	88	64	152	32	14	106
Home for Aged People	"	71	21	92	13	6	73
Convalescent Home	"	2	29	31	28	.....	3
Home for Incurables	"	21	17	38	9	6	23
St Patrick's Refuge	Ottawa	91	40	131	23	11	97
St. Charles' Hospice	"	125	98	223	45	24	154
Home for the Aged	"	32	27	59	21	4	34
Refuge Branch, Orphans' Home	"	20	8	28	7	3	18
The Home for Friendless Women	"	39	62	101	58	1	42
The Refuge of Our Lady of Charity	"	154	185	339	129	1	209
Home for Incurables	"	19	8	27	2	6	19
House of Providence	Guelph	61	50	111	41	4	66
The Thomas Williams Home	St. Thomas	18	5	23	6	2	15
House of Providence	Dundas	70	117	187	66	6	115
Home for the Friendless	Chatham	10	20	30	20	.....	10
The Widows' Home	Brantford	12	4	16	3	2	11
The Home for the Friendless	Belleville	10	11	21	9	2	10
The Protestant Home	Peterborough	17	12	29	8	2	19
House of Providence	"	37	66	103	43	5	55
Home for the Friendless	Windsor	15	10	25	6	4	15
Home for the Aged and Infirm	Coburg	8	2	10	4	.....	6
Home for the Aged	Lindsay	17	7	24	3	1	20
St. Paul's Home for the Aged	Cornwall	44	32	76	25	8	43
Home for the Aged and Infirm	Bowmanville	7	12	19	11	2	6
Totals for 1902		2,412	2,555	4,967	2,072	333	2,562
Totals for 1901		1,069	2,427	4,786	2,040	402	2,413

TABLE No. 2.

Shows the aggregate stay of inmates, upon which the amount of aid to be granted by the Government to each Refuge is based. The average stay per inmate is also given.

Name of Refuge	Location.	The number of inmates during the year.	Total stay in days during the year.	Average stay per inmate in days.
House of Industry	Toronto	302	50,192	166
House of Providence	"	772	161,154	209
Home for Incurables	"	175	46,018	263
St. John's Hospital	"	185	6,563	35
Convalescent Home	"	221	6,588	30
The Church Home	"	28	8,637	308
The Haven	"	475	32,477	68
Old Folk's Home	"	33	9,633	292
Good Shepherd Female Refuge	"	138	33,802	245
Aged Men's Home	"	30	8,370	279
Aged Women's Home	"	68	18,989	297
House of Refuge	Hamilton	139	35,109	253
Home for Aged Women	"	40	12,538	313
St. Peter's Home	"	44	9,050	206
House of Industry	Kingston	102	15,762	454
House of Providence	"	261	67,823	260
Home for Friendless Women	"	59	7,450	126
Roman Catholic House of Refuge	London	152	37,006	243
Home for Aged People	"	92	27,239	296
Convalescent Home	"	31	1,754	57
Home for Incurables	"	38	7,387	194
St. Patrick's Refuge	Ottawa	131	35,546	271
St. Charle's Hospice	"	223	51,839	232
Home for the Aged	"	59	13,434	228
Refuge Branch Orphan's Home	"	28	6,906	247
The Home for Friendless Women	"	101	14,432	143
The Refuge of Our Lady of Charity	"	339	60,424	178
Home for Incurables	"	27	7,211	267
House of Providence	Guelph	111	25,123	227
The Thomas Williams' Home	St. Thomas	23	6,730	293
House of Providence	Dundas	187	36,242	194
Home for the Friendless	Chatham	30	4,309	144
The Widows' Home	Brantford	16	4,397	275
The Home for the Friendless	Belleville	21	3,784	180
The Protestant Home	Peterborough	29	6,712	232
House of Providence	"	103	18,071	175
Home for the Friendless	Windsor	25	5,215	209
Home for the Aged and Infirm	Coburg	10	2,931	293
Home for the Aged	Lindsay	24	6,936	289
St Paul's Home for the Aged	Cornwall	76	17,922	236
Home for the Aged and Infirm	Bowmanville	19	2,821	148
Total for 1902		4,967	934,526	181
Totals for 1901		4,786	898,476	187

TABLE No. 3.

Shows the cost of maintaining the Refuges.

Name of Refuge.	Location.	Aggregate stay of inmates.	Cost of dietaries	Expenditure for fuel, salaries and wages and all general expenses.	Total expenditure, exclusive of extraordinary expenses	Average cost per inmate per day
			$ c	$ c.	$ c.	cents.
House of Industry	Toronto	50,192	5,220 90	4,378 45	* 9,599 35	.1912
House of Providence	"	161,154	17,369 95	15,124 26	32,494 21	.2016
Home for Incurables	"	46,018	7,607 54	11,193 02	18,800 56	.4085
St. John's Hospital	"	6,563	2,839 07	4,267 61	7,106 68	1.0820
Convalescent Home	"	6,588	1,857 91	2,146 23	4,004 14	6078
The Church Home	"	8,637	1,087 37	1,251 90	2,339 27	2708
The Haven	"	32,477	2,958 09	4,342 48	7,300 57	2248
Old Folks' Home	"	9,633	1,601 24	2,305 50	3,906 74	.4045
Good Shepherd Female Refuge	"	33,802	2,305 21	4,465 19	6,770 40	.2002
Aged Men's Home	"	8,370	1,082 39	2,251 24	3,333 63	.3982
Aged Women's Home	"	18,989	1,770 44	3,781 66	5,552 10	.2923
House of Refuge	Hamilton	35,109	3,510 44	5,832 44	9,342 88	.2661
Home for Aged Women	"	12,538	1,528 11	2,212 59	3,740 70	.2983
St. Peter's Home	"	9,050	742 77	1,639 87	2,382 64	.2632
House of Industry	Kingston	15,762	1,348 73	1,329 21	2,677 94	.1698
House of Providence	"	67,823	6,680 76	8,479 38	15,160 14	.2235
Home for Friendless Women	"	7,450	505 36	991 44	1,496 80	.2008
Roman Catholic House of Refuge	London	37,006	6,054 50	7,582 60	13,637 10	.3685
Home for Aged People	"	27,239	3,369 31	3,185 57	6,554 88	.2406
Convalescent Home	"	1,754	197 16	348 90	546 06	3113
Home for Incurables	"	7,387	1,300 76	2,435 27	3,736 03	.5057
St. Patrick's Refuge	Ottawa	35,546	5,555 21	4,247 05	9,802 26	.2727
St. Charles' Hospice	"	51,839	4,898 25	4,754 61	9,652 86	.1862
Home for the Aged	"	13,434	1,087 31	1,849 77	2,937 08	.2186
Refuge Branch, Orphan's Home	"	6,906	1,874 12	2,335 22	4,209 34	.6095
The Home for Friendless Women	"	14,432	1,388 53	4,143 79	5,532 32	.3833
The Refuge of Our Lady of Charity	"	60,424	5,265 73	6,532 82	11,798 55	.1952
Home for Incurables	"	7,211	1,125 36	2,697 62	3,822 98	.5301
House of Providence	Guelph	25,123	2,468 18	2,239 17	4,707 35	.1876
The Thomas Williams' Home	St. Thomas	6,730	794 41	1,243 50	2,037 91	.3028
House of Providence	Dundas	36,242	3,369 80	4,476 25	7,846 05	.2164
Home for the Friendless	Chatham	4,309	449 92	1,610 03	2,059 95	.4780
The Widows' Home	Brantford	4,397	319 13	611 71	930 84	.2114
The Home for the Friendless	Belleville	3,784	208 47	229 41	427 88	.1156
The Protestant Home	Peterborough	6,712	696 96	686 23	1,383 19	.2060
House of Providence	"	18,071	2,257 66	1,248 57	3,506 23	.1940
Home for the Friendless	Windsor	5,215	613 22	684 98	* 1,298 20	.2489
Home for the Aged and Infirm	Cobourg	2,931	517 88	399 55	917 43	.3130
Home for the Aged	Lindsay	6,936	689 42	873 66	1,563 08	.2267
St. Paul's Home for the Aged	Cornwall	17,922	1,762 52	978 04	2,740 56	.1528
Home for the Aged and Infirm	Bowmanville	2,821	245 86	390 46	636 32	.2255
Totals for 1902		934,526	106,525 95	131,777 25	238,303 20	.2549
Totals for 1901		897,459	101,326 18	139,615 47	240,941 65	.3201

* House of Industry, Toronto—Exclusive of outdoor relief, $11,830.11.
* Home for the Incurables, Windsor— do $1,430.78.

TABLE No. 4.

Shows the basis upon which statutory aid is granted.

Name of Refuge	Location.	Collective days' stay upon which computation of Refuge rates is based, exclusive of infants under 1 year old.	Collective days' stay upon which computation of Orphanage rates is based, exclusive of infants under 1 year old.	Amount received from all sources other than Government.	Computation at 7 cents per day.	Computation at 2 cents per day.	Total Government allowance to each House of Refuge for the year 1902.
				$ c.	$ c.	$	$ c.
House of Industry	Toronto	50,192		17,609 50	3,513 44		3,513 44
House of Providence	"	161,154		20,856 55	11,280 78		11,280 78
Home for Incurables	"	46,018		20,110 61	3,221 26		3,221 26
St. John's Hospital	"	6,563		7,025 43	984 45		984 45
Convalescent Home	"	6,332	205	4,240 45	443 24	4 10	447 34
The Church Home	"	8,637		2,040 37	604 59		604 59
The Haven	"	25,250	1,894	6,551 47	1,767 50	37 88	1,805 38
Old Folks' Home	"	9,633		3,338 95	674 31		674 31
Good Shepherd Fem. Refuge	"	31,534	2,268	4,856 75	2,207 38	45 36	2,252 74
Aged Men's Home	"	8,370		2,709 23	585 90		585 90
Aged Women's Home	"	18,989		5,416 23	1,329 23		1,329 23
House of Refuge	Hamilton	35,109		7,700 59	2,457 63		2,457 63
Home for Aged Women	"	12,538		2,923 30	877 66		877 66
St. Peter's Home	"	9,050		1,471 26	633 50		633 50
House of Industry	Kingston	15,762		2,301 39	1,103 34		1,103 34
House of Providence	"	67,823		9,806 25	4,747 61		4,747 61
Home for Friendless Women	"	1,858	3,693	1,800 59			
Roman Catholic House of Ref.	London	37,006		10,658 52	2,590 42		2,590 42
Home for Aged People	"	27,239		5,568 05	1,906 73		1,906 73
Convalescent Home	"	1,754		408 01	122 78		122 78
Home for Incurables	"	7,387		2,306 36	517 09		517 09
St. Patrick's Refuge	Ottawa	35,546		8,488 01	2,488 22		2,488 22
St. Charles' Hospice	"	51,741	98	4,929 26	3,621 87	1 96	3,623 83
Home for the Aged	"	13,434		1,714 56	940 38		940 38
Refuge Branch, Orphan's Hm,	"	6,909		4,367 38	483 63		483 63
The Home for Friendless Wm.	"	9,791	4,472	4,805 83	685 37	89 44	774 81
The Ref. of Our Lady of Char.	"	48,162	12,262	9,230 30	3,371 34	245 24	3,616 58
Home for Incurables	"	7,211		2,997 43	504 77		504 77
House of Providence	Guelph	25,123		2,820 15	1,758 61		1,758 61
The Thomas William's Home	St. Thomas	6,730		1,579 92	471 10		471 10
House of Providence	Dundas	36,242		5,954 67	2,536 94		2,536 94
Home for the Friendless	Chatham	4,309		2,104 97	301 63		301 63
The Widow's Home	Brantford	4,397		656 69	307 79		307 79
The Home for the Friendless	Belleville	3,784		352 00	264 88		264 88
The Protestant Home	Peterborough	6,376	336	1,399 87	446 32	6 72	453 04
House of Providence	"	12,447	5,238	2,583 66	871 29	104 76	976 05
Home for the Friendless	Windsor	5,215		2,432 56	365 05		365 05
Home for the Aged & Infirm	Cobourg	2,931		959 99	205 17		205 17
Home for the Aged	Lindsay	6,936		1,146 09	485 52		485 52
St. Paul's Home for the Aged	Cornwall	17,922		1,729 10	1,254 54		1,254 54
Home for the Aged & Infirm	Bowmanville	2,821		581 08	197 47		197 47
Totals for 1902		896,225	30,466	200,533 38	64,130 73	535 46	64,666 19
Totals for 1901		858,270	32,530	147,049 06	60,578 58	650 60	61,229 18

HOUSE OF INDUSTRY, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1901	126	
Admitted	176	
Total number of inmates		302
Discharged	164	
Died	26	
In residence, 30th September, 1902	112	
		302

Places Received from

From the City of Toronto	301	
From the County of York and other counties	...	
Immigrants and foreigners	1	
		302

Sex.

Male	232	
Female	70	
		302

Receipts.

From the Province of Ontario	$ 3,665 13
From the City of Toronto	14,000 00
From Inmates	263 82
Income from property belonging to the House	610 57
Subscriptions and donations	2,495 00
From other sources	240 11
Total	$21,274 63

Expenditures.

Food of all kinds	$ 5,220 90
Clothing, furniture & furnishings	769 69
Fuel, light and cleaning	1,859 79
Salaries and wages	950 00
Repairs	180 99
Other expenditures	617 98
Outdoor and casual poor	11,830 11
Total	$21,429 46
Government aid for 1902	$ 3,513 44

HOUSE OF PROVIDENCE, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1901	455	
Admitted	317	
Total		772
Discharged	289	
Died	53	
In residence, 30th September, 1902	430	
		772

Places Admitted from.

City of Toronto	743	
County of York	3	
Other counties in Ontario	26	
		772

Sex.

Male	307	
Female	465	
		772

Receipts.

From the Province of Ontario	$11,623 08
From the City of Toronto	6,000 00
Other Municipalities	184 50
Income from property belonging to the House	1,000 00
From Inmates, in payment of board	3,626 00
Subscriptions, donations and bequests of private individuals	7,069 10
From other sources	2,976 95
	$32,479 63

Expenditures.

Food of all kinds	$17,369 95
Clothing, furniture and furnishings	3,075 29
Fuel, light and cleaning	3,998 56
Wages	970 75
Ordinary repairs	2,553 77
Livestock and feed for same	811 49
Other expenditures	3,714 40
Total	$32,494 21
Government aid for 1902	$11,280 78

HOME FOR INCURABLES, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence 1st October, 1901	133	
Admitted	42	
Total		175
Discharged	11	
Died	40	
In residence, 30th September, 1902	124	
		175

Places Admitted from.

From the City of Toronto	154	
From the County of York and other counties	21	
Immigrants, foreigners, etc		
		175

Sex.

Male	91	
Female	84	
		175

Receipts.

From the Province of Ontario	$ 3,206 42
From the City of Toronto	3,000 00
From other municipalities	
Payments from inmates	4,093 08
Income from property belonging to the house	1,642 20
Subscriptions, donations and income	4,595 47
Other sources	100 00
Total	$16,637 17

Expenditures.

Food of all kinds	$ 7,607 54
Clothing and furnishings	1,058 41
Fuel, light and cleaning	3,162 42
Salaries and wages	4,975 63
Repairs, grounds, etc	537 79
Medicine and medical comforts	931 76
Other expenses	527 01
Total	$18,800 56

Government aid for 1902 ..... $ 3,221 26

AGED WOMEN'S HOME, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence 1st October, 1901	45	
Admitted	23	
Total		68
Discharged	5	
Died	9	
In residence, 30th September, 1902	54	
		68

Sex.

Females	68	
		68

Places Admitted from.

City of Toronto	50	
County of York and other counties	16	
Immigrants, foreigners, etc	2	
		68

Receipts.

From the Government of Ontario	$
From the City of Toronto	150 00
From the County of York	
From payments made by inmates	4,990 25
Subscriptions, donations, etc	269 03
Received from other sources	6 95
Total	$ 5,416 23

Expenditures.

Food of all kinds	$ 1,770 44
Clothing and furnishings	1,009 77
Fuel, light, cleaning, etc	732 23
Salaries and wages	1,578 50
Repairs	173 88
Other expenses	287 28
Total	$ 5,552 10

Government aid for 1902 ..... $ 1,329 23

ST. JOHN'S HOSPITAL, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence 1st October, 1901	18	
Admitted	167	
Total number of inmates		185
Discharged	160	
Died	7	
In residence 30th September, 1902	18	
		185

Places Admitted From.

City of Toronto	116	
County of York	3	
Other Counties	55	
Immigrants, foreigners, etc.	11	
		185

Sex.

Female	185	
		185

Receipts.

From the Government of Ontario	$1,068 15
From the City of Toronto	301 20
From other municipalities	.....
From the inmates	6,289 75
Subscriptions	165 48
Other sources	169 00
Total	$7,993 58

Expenditures.

Food of all kinds	$2,839 07
Furniture and furnishings	212 98
Fuel, gas, etc.	1,138 44
Salaries and wages	1,869 08
Repairs, ordinary	287 20
Medicine, medical comforts	486 65
Other expenses	273 26
Total	$7,106 68
Government aid for 1902	$ 984 45

THE CONVALESCENT HOME, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Patients.

In residence 1st October, 1902	14	
Admitted	207	
Total number of inmates		221
Discharged	199	
Died	0	
In residence 30th September, 1902	22	
		221

Places Admitted From.

City of Toronto	194	
County of York	15	
Other counties	4	
Immigrants, foreigners, etc.	8	
		221

Sex.

Male	27	
Female	194	
		221

Receipts.

From the Province of Ontario	$ 393 26
From the City of Toronto	390 00
Payment from inmates	3,178 68
Income from property belonging to the Home	93 17
Subscriptions and donations	56 60
Other sources	22 00
Total	$4,633 71

Expenditure.

Food of all kinds	$1,857 91
Furnishings, etc.	229 82
Fuel, light and cleaning	483 22
Salaries and wages	$1,041 00
Ordinary repairs, etc	200 14
Other expenses	192 05
Total	$4,004 14
Government aid for 1902	$ 447 34

CHURCH HOME FOR THE AGED, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence 1st October, 1901	23	
Admitted	5	
Total number of inmates		28
Discharged	5	
Died	1	
In residence 30th September, 1902	22	
		28

Places admitted from.

City of Toronto	19	
Other counties of Ontario	9	
Immigrants, foreigners, etc.	..	
		28

Sex.

Male	9	
Female	19	
		28

Receipts.

From the Government of Ontario	$ 617 12
From the City of Toronto	130 00
From the County of York	.. ..
From other municipalities	.....
From payments made by inmates	1,591 50
Income from property belonging to the Home	.....
Subscriptions, donations, etc.	318 87
Total	$2,657 49

Expenditures.

Food of all kinds	$1,087 37
Clothing and furnishings	135 89
Fuel, light, cleaning, etc.	491 66
Salaries and wages	395 83
Repairs	125 70
Other expenses	102 82
Total	$2,339 27
Government aid for 1902	$ 604 59

THE HAVEN, TORONTO.

The following summaries show the operations of this Asylum during the year

Movements of Inmates.

In residence 1st October, 1901	84	
Admitted	391	
Total number of inmates		475
Discharged	369	
Deaths	18	
In residence 30th September, 1902	88	
		475

Sex.

Male (Infants)	38	
Female	437	
		475

Places admitted from.

City of Toronto	414	
Other cities and counties	61	
		475

Receipts.

From the Province of Ontario	$1,709 11
From the City of Toronto	1,420 00
From Inmates	850 04
Income from laundry	2,920 66
Subscriptions and donations	1,295 72
From other sources	65 05
Total	$8,260 58

Expenditures.

Food of all kinds	$2,958 09
Clothing and Furnishings, etc.	871 07
Fuel, light, cleaning etc.	1,432 55
Salaries and wages	1,453 75
Repairs	190 83
Other expenses	394 28
Total	$7,300 57
Government aid for 1902	$1,805 38

THE OLD FOLKS' HOME, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movement of Inmates.

In residence 1st October, 1901	25	
Admitted	8	
Total number of inmates		33
Discharged	6	
Died	3	
In residence 30th September, 1902	24	
		33

Places Admitted From.

City of Toronto	32	
County of York		
Other counties	1	
Immigrants, foreigners, etc		
		33

Sex.

Females	33	
		33

Receipts.

From the Province of Ontario	$	686 21
From the City of Toronto		300 00
From other municipalities		
Payments for inmates		1,778 90
Income from property belonging to the House		180 30
Subscriptions, donations and income		1,079 75
Other sources		
Total	$	4,025 16

Expenditures.

Food of all kinds	$	1,601 24
Clothing and furnishings		269 23
Fuel, light and cleaning		606 95
Salaries and wages		993 40
Repairs		322 23
Other expenses		113 69
Total	$	3,906 74
Government aid for 1902	$	674 31

GOOD SHEPHERD FEMALE REFUGE, TORONTO.

The following summaries show the operations of this Refuge during the year:

Movements of Inmates.

In residence, 1st October, 1901	89	
Admitted	49	
Total number of Inmates		138
Discharged	41	
Died	1	
In residence, 30th September, 1902	96	
		138

Places Received From.

From the City of Toronto	127	
From the County of York and other counties	3	
Immigrants and foreigners	8	
		138

Sex.

Female	138	
		138

Receipts.

From the Province of Ontario	$	1,912 73
From the City of Toronto		300 00
From inmates		25 00
Subscriptions and donations		300 00
From other sources		4,231 75
Total	$	6,769 48

Expenditures.

Food of all kinds	$	2,305 21
Clothing, furniture & furnishings		892 30
Fuel, light and cleaning		1,044 46
Salaries and wages		520 00
Repairs		57 63
Other expenditures		1,950 80
Total	$	6,770 40
Government aid for 1902	$	2,252 74

AGED MEN'S HOME, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries :

Movement of Inmates.

In residence 1st of October, 1901	20	
Admitted	10	
Total		30
Discharged	3	
Died	4	
In residence 30th September, 1902.	23	
		30

Sex.

Male	30	
Female		
		30

Places Admitted From.

City of Toronto	27	
County of York and other counties	2	
Immigrants, foreigners, etc	1	
		30

Receipts.

From the Government of Ontario	$	554 61
From the City of Toronto		150 00
From payments made by inmates		1,959 75
Subscriptions, donations, etc		596 56
Received from all other sources		2 92
Total	$	3 263 84

Expenditures.

Food of all kinds	$	1,082 39
Clothing and furnishings		297 29
Fuel, light, cleaning, etc		506 37
Salaries and wages		1,023 75
Repairs		175 56
Other expenses		248 27
Total	$	3,333 63
Government aid for 1902	$	585 90

HOUSE OF REFUGE, HAMILTON.

Full particulars of the operations of this Institution will be found in the annexed summaries :

Movements of Inmates.

In residence 1st October 1901	102	
Admitted	37	
Total number of inmates		139
Discharged	34	
Died	15	
In residence 30th September, 1902.	90	
		139

Places Admitted From.

City of Hamilton	124	
County of Wentworth	14	
Other counties	1	
Imigrants, foreigners, etc		
		139

Sex.

Male	85	
Female	54	
		139

Receipts.

From the Government of Ontario	$	2,705 08
From the City of Hamilton		7,365 59
From the inmates		222 00
Subscriptions, donations of private individuals		100 00
From all other sources		13 00
Total	$	10,405 67

Expenditures.

Food of all kinds	$	3,510 44
Clothing, furnishings, etc		546 95
Fuel, gas, etc		1,906 77
Salaries and wages		2,019 00
Ordinary Repairs		633 87
Other expense, taxes, etc		725 85
Total	$	9,342 88
Government aid for 1902	$	2,457 63

HOME FOR AGED WOMEN, HAMILTON

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Patients.

In residence 1st October, 1901	32	
Admitted	8	
Total number of inmates		40
Number discharged	1	
Number of deaths	3	
In residence, 30th September, 1902	36	
		40

Places Admitted from.

City of Hamilton	40	
		40

Sex.

Female	40	
		40

Receipts.

From the Government of Ontario	$ 809 69
From the City of Hamilton	293 99
Income from property belonging to the House	1,120 03
From the inmates	.....
Subscriptions, donations of private individuals	1,409 28
From all other sources	100 00
Total	$ 3,732 99

Expenditures.

Food of all kinds	1,528 11
Clothing, furnishings, etc	125 48
Fuel, gas, etc	547 60
Salaries and wages	962 16
Ordinary repairs	.....
Other expenses	577 35
Total	$ 3,740 70

Government aid for 1902 $ 877 66

ST. PETER'S HOME, HAMILTON.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1901	26	
Admitted	18	
Total number of inmates		44
Discharged	16	
Died	5	
In residence, 30th September, 1902	23	
		44

Places Admitted from.

City of Hamilton	21	
County of Wentworth and other counties	23	
Immigrants, foreigners, etc		
		44

Sex.

Male	28	
Female	16	
		44

Receipts.

From the Ontario Government	$ 831 39
From the City of Hamilton	528 31
From the County of Wentworth	300 00
From the inmates	542 95
From subscriptions, donations, etc.	.....
From other sources	100 00
Total	$2,302 65

Expenditures.

Food of all kinds	742 77
Clothing, furnishings, etc	12 90
Fuel, light and cleaning	105 80
Salaries and wages	394 00
Ordinary repairs	251 69
Live stock and farm grounds	306 34
Other expenses	569 14
Total	$2,382 64

Government aid for 1902 $ 633 50

HOUSE OF INDUSTRY, KINGSTON.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Patients.

In residence, 1st October, 1901	42	
Admitted	60	
Total number of inmates		102
Discharged	54	
Died	2	
In residence, 30th September, 1902	46	
		102

Places Admitted from.

City of Kingston	67	
County of Frontenac	16	
Other counties of Ontario	15	
Immigrants, foreigners, etc	4	
		102

Sex.

Male	72	
Female	30	
		102

Receipts

From the Province of Ontario	$1,022 49
From the City of Kingston	1,550 00
County of Frontenac	75 00
Payments from inmates	103 00
Subscriptions and donations	293 00
Other sources	280 39
Total	$3,323 88

Expenditures.

Food of all kinds	1,348 73
Clothing, furniture and furnishings	109 91
Fuel and light	442 38
Salaries and wages	540 25
Repairs, ordinary	90 76
Other expenses	145 91
Total	$2,677 94
Government aid for 1902	$1,103 34

HOUSE OF PROVIDENCE, KINGSTON.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates

In residence, 1901	171	
Admitted	90	
Total number of inmates		261
Discharged	75	
Died	24	
In residence, 30th September, 1902	162	
		261

Places Admitted from.

City of Kingston	73	
County of Frontenac	51	
Other counties	125	
Immigrants, foreigners, etc	12	
		261

Sex.

Male	127	
Female	134	
		261

Receipts.

From the Province of Ontario	$5,402 21
From the City of Kingston	
From the County of Frontenac	100 00
From other municipalities	255 00
Income from property	336 00
Payment from inmates	2,092 85
Subscriptions and donations	3,063 58
Sisters' earnings, etc	2,237 20
Other sources	1,721 62
	$15,208 46

Expenditures.

Food of all kinds	$6,680 76
Clothing and furnishings, etc	2,318 51
Salaries and wages	
Fuel, light and cleaning	2,332 86
Repairs, ordinary	948 04
Live stock and farm grounds	246 85
Taxes and insurance	1,106 05
Other expenses	1,527 07
	$15,160 14
Government aid for 1902	$ 4,747 61

HOME FOR FRIENDLESS WOMEN AND INFANTS, KINGSTON.

Full particulars of the operations of the Institution will be found in the annexed summaries :

Movements of Inmates.

In residence, 1st October, 1901	20	
Admitted	39	
Total number of inmates		59
Discharged	28	
Died	8	
In residence 30th September, 1902	23	
		59

Places Admitted From.

From the City of Kingston	32	
From the County of Frontenac	20	
Other counties in Ontario	7	
Immigrants, foreigners, etc		
		59

Sex.

Male	19	
Female	40	
		59

Receipts.

From the Province of Ontario	$217 31
From the City of Kingston	175 00
From the County of Frontenac	50 00
From inmates	720 50
Subscriptions and donations	195 68
Other sources	659 41
Total	$2,017 90

Expenditure.

Food of all kinds	505 36
Clothing and furnishings	42 60
Fuel, light, cleaning, etc	161 63
Salaries and wages	452 75
Repairs	54 61
Other expenses	279 85
Total	$1,496 80

Note Receipts for year being greater than expenditure, not entitled to government grant.—63 Vic. Cap. 59.

ROMAN CATHOLIC HOUSE OF REFUGE, LONDON.

Full particulars of the operations of this Institution will be found in the annexed summaries

Movements of Inmates

In residence, 1st October, 1901	88	
Admitted	64	
Total number of inmates		152
Discharged	32	
Died	14	
In residence, 30th September, 1902	106	
		152

Places Admitted From.

City of London	57	
County of Middlesex		
Other counties in Ontario	95	
Immigrants, foreigners, etc		
		152

Sex.

Male	62	
Female	90	
		152

Receipts.

From the Province of Ontario	$2,903 78
From the City of London	200 00
Payments from inmates	2,376 02
Subscriptions and donations	7,982 50
Other sources	100 00
Total	13,562 30

Expenditure.

Food of all kinds	$6,054 50
Clothing, furniture & furnishings	2,206 19
Fuel, light and cleaning	1,787 69
Salaries and wages	697 76
Repairs, ordinary, medicine, taxes, etc	1,354 85
Live stock and farm grounds	551 06
Other expenses	985 05
Total	13,637 10
Government aid for 1902	$2,590 42

HOME FOR AGED PEOPLE, LONDON

Full particulars of the operations of this Institution will be found in the annexed summaries :

Movements of Inmates.

In residence 1st October, 1901	71	
Admitted	21	
Total number of inmates		92
Discharged	13	
Died	6	
In residence 30th September, 1902	73	
		92

Places Admitted From.

City of London	81	
County of Middlesex	6	
Other counties of Ontario	4	
Immigrants, Foreigners, etc	1	
		92

Sex.

Male	49	
Female	43	
		92

Receipts.

From the Province of Ontario	$1,834 21
From the City of London	3,239 08
Payments for inmates	2,210 84
Subscriptions and donations	95 00
Other sources	23 13
Total	7,402 26

Expenditure.

Food of all kinds	3,339 31
Clothing, furniture & furnishings	402 04
Fuel, gas, candles, etc	621 68
Salaries and wages	1,388 75
Repairs, ordinary	244 66
Other expenses and taxes	528 44
Total	$6,554 88
Government aid for 1902	$1,906 73

CONVALESCENT HOME, LONDON.

Full particulars of the operations of this Institution will be found in the annexed summaries :

Movements of Patients.

In residence 1st of October 1901	2	
Admitted	29	
Total number of Inmates		31
Discharged	28	
Died		
In residence, 31st September, 1902	3	
		31

Places Admitted From.

City of London	30	
From other places	1	
		31

Sex.

Male	12	
Female	19	
		31

Receipts.

From the Province of Ontario	108 85
From the City of London	100 00
Payments from inmates	75 50
Subscriptions and donations	221 70
Other sources	10 81
Total	$516 86

Expenditure.

Food of all kinds	197 16
Clothing, furniture & furnishings	
Fuel, gas, etc	94 13
Salaries and wages	216 00
Repairs, ordinary	14 73
Other expenses	24 04
Total	$546 06
Government aid for 1902	$ 122 78

HOME FOR INCURABLES, LONDON.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates

In residence 1st October, 1901	21	
Admitted	17	
Total number of inmates		38
Discharged	9	
Died	6	
In residence 30th September, 1902.	23	
		38

Places Admitted From.

City of London	26	
County of Middlesex	8	
Other counties of Ontario	4	
Immigrants, foreigners, etc		
		38

Sex.

Male	15	
Female	23	
		38

Receipts.

From the Province of Ontario	$ 633 22
From the City of London	1,153 85
From the County of Middlesex	.....
Payments from inmates	1,019 75
Subscriptions, donations and income	125 28
Other sources	7 50
	$2,939 58

Expenditures

Food of all kinds	$1,300 76
Clothing and furnishings	437 17
Fuel, light and cleaning	395 80
Salaries and wages	1,111 75
Repairs	60 50
Other expenses	430 05
Total	3,736 03
Government aid for 1902	$ 517 09

ST. PATRICK'S REFUGE, OTTAWA.

Full particulars of the operations of this Institution are shown in the annexed summaries:

Movements of Inmates.

In residence 1st October, 1901	91	
Admitted	40	
Total number of inmates		131
Discharged	23	
Died	11	
In residence, 30th September, 1902.	97	
		131

Sex.

Male	65	
Female	66	
		131

Places Admitted From.

City of Ottawa	90	
County of Carleton	22	
Immigrants	8	
Other counties in Ontario	11	
		131

Receipts.

From the Government of Ontario	2,689 68
From the City of Ottawa	200 00
From the County of Carleton	75 00
From other municipalities	25 00
From payments made by inmates	734 42
Subscriptions, donations, etc	4,288 05
Other sources	3,165 54
Total	$11,177 69

Expenditures.

Foods of all kinds	$5,555 21
Clothing and furnishings	861 37
Fuel, light, cleaning, etc	332 49
Salaries and wages	1,150 47
Repairs, ordinary	284 06
Live stock and farm grounds	742 07
Other expenses	650 95
Taxes, printing and insurance	225 64
Total	$9,802 26
Government aid for 1902.	$2,488 22

ST. CHARLES' HOSPICE, OTTAWA.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1901	125	
Admitted	98	
Total number of inmates		223
Discharged	45	
Died	24	
In residence, 30th September, 1902	154	
		223

Sex.

Male	84	
Female	139	
		223

Places Admitted From.

City of Ottawa	122	
County of Carleton	49	
Other counties	44	
Immigrants, foreigners, etc	8	
		223

Receipts.

From the Government of Ontario	$3,353 37
From the County of Carleton	50 00
Income from property belonging to the House	1,092 92
From payments made by inmates	1,325 30
Subscriptions, donations, etc	2,202 20
Other sources	258 84
Total	$ 8,282 63

Expenditures.

Food of all kinds	$ 4,898 25
Clothing and furnishings	320 07
Fuel, light, cleaning, etc	1,666 29
Salaries and wages	701 15
Repairs, ordinary	57 68
Live stock and farm grounds	571 92
Other expenses	248 43
Taxes, printing and insurance	1,189 07
Total	$9 652 86
Government aid for 1902	$3,623 83

HOME FOR THE AGED OTTAWA.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1901	32	
Admitted	27	
Total number of inmates		59
Discharged	21	
Died	4	
In residence, 30th September, 1902	34	
		59

Sex.

Male	59	
Female		
		59

Places Admitted From.

City of Ottawa	34	
County of Carleton	25	
Other counties		
Immigrants, foreigners, etc		
		59

Receipts.

From the Government of Ontario	$1,009 33
From the County of Carleton	300 00
From other municipalities	75 00
From payments made by inmates	106 00
Subscriptions, donations, etc	527 13
Other sources	706 43
Total	$2,723 89

Expenditures.

Food of all kinds	$1,087 31
Clothing and furnishings	
Fuel, light, cleaning, etc	482 38
Salaries and wages	1,061 00
Repairs, ordinary, farm, printing	120 74
Other expenses	185 65
Total	$2,937 08
Government aid for 1902	$940 38

REFUGE BRANCH, ORPHANS' HOME, OTTAWA.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movement of Patients.

In residence, 1st October, 1901	20	
Admitted	8	
Total number of inmates		28
Discharged	7	
Died	3	
In residence, 1st September, 1902	18	
		28

Places Admitted From.

City of Ottawa	20	
County of Carleton	6	
Other counties of Ontario	2	
Immigrants, foreigners, etc		
		28

Sex.

Female	28	
		28
Government aid for 1902		$483 63

The receipts and expenditure of this charity are shown in the report upon Orphans' Home, Ottawa.

THE HOME FOR FRIENDLESS WOMEN, OTTAWA.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

Number under treatment, 1st October, 1901	39	
Admitted	62	
Total number of inmates		101
Discharged	58	
Died	1	
In residence 30th Sept., 1902	42	
		101

Places admitted from.

City of Ottawa	62	
County of Carlton	38	
Other Counties in Ontario	1	
Immigrants, etc		
		101

Sex.

Male	17	
Female	84	
		101

Receipts.

From the Province of Ontario	$	836 93
From the City of Ottawa		
From County of Carlton		50 00
Payment from inmates		
Subscriptions and donations		180 00
Income from laundry		4,488 83
From all other sources		87 00
		5,642 76

Expenditures.

Food of all kinds	$	1,388 53
Clothing, furniture and furnishings		54 55
Fuel, light and cleaning appliances		850 02
Salaries and wages		1,886 71
Repairs, ordinary		88 95
Other expenses		1,263 56
		5,532 32
Government aid for 1902	$	774 81

THE REFUGE OF OUR LADY OF CHARITY, OTTAWA.

The following summaries show the operations of this Refuge during the year.

Movement of Inmates.

In residence 1st October, 1901	154	
Admitted	185	
Total number of inmates		339
Discharged	129	
Died	1	
In residence, 30th September, 1902	209	
		339

Sex.

Female	339	
		339

Places Admitted From.

City of Ottawa	247	
County of Carleton	33	
Other counties in Ontario	57	
Immigrants, foreigners, etc	2	
		339

Receipts.

From the Government of Ontario	$3,518 43
From the City of Ottawa	
County of Carleton	50 00
From payments made by inmates	875 00
Subscriptions, donations, etc	1,875 25
Other sources	6,430 10
Total	12,748 78

Expenditure.

Food of all kinds	5,265 73
Clothing and furnishings	1,020 06
Fuel, light, cleaning, etc	1,796 00
Salaries and wages	695 00
Repairs, ordinary	493 05
Live stock and farm grounds	1,032 10
Other expenses	835 49
Taxes and insurances	661 12
Total	$11,798 55
Government aid for 1902	$ 3,616 58

HOME FOR INCURABLES, OTTAWA.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1901	19	
Admitted	8	
Total		27
Discharged	2	
Died	6	
In residence, 30th September, 1902	19	
		27

Sex.

Male	11	
Female	16	
		27

Places Admitted From.

City of Ottawa	27	
		27

Receipts.

From the Government of Ontario	$401 94
From the City of Ottawa	500 00
From payments made by inmates	431 00
Subscriptions, donations, etc	1,570 75
Other sources	495 68
Total	$3,399 37

Expenditures.

Food of all kinds	$1,125 36
Clothing, Furniture & furnishings	71 77
Fuel, light, cleaning, etc	973 75
Salaries and wages	958 70
Repairs, ordinary	26 38
Other expenses, including taxes and insurance	667 02
Total	$3,822 98
Government aid for 1902	$ 504 77

HOUSE OF PROVIDENCE, GUELPH.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1901	61	
Admitted	50	
Total number of inmates		111
Discharged	41	
Died	4	
In residence, 30th September, 1902	66	
Total		111

Places Admitted From.

From the City of Guelph	28	
From the County of Wellington	35	
Other Counties of Ontario	48	
Foreigners, etc		111

Sex.

Male	63	
Female	48	
		111

Receipts.

Province of Ontario	$1,617 98
City of Guelph	749 75
County of Wellington and other municipalities	200 00
From inmates in part payment for board	1,412 40
Income from property	400 00
Subscriptions, donations, and bequests	58 00
From other sources	
Total	$4 438 13

Expenditures.

Food of all kinds	$2,468 18
Clothing and furnishings	898 35
Fuel, light and cleaning	710 59
Salaries and Wages	
Ordinary repairs	
Other expenses	630 23
Live stock and farm grounds	
Totol	$4,707 35
Government aid for the year 1902	$1,758 61

THE THOMAS WILLIAMS' HOME, ST. THOMAS.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1901	18	
Admitted	5	
Total number of inmates		23
Discharged	6	
Died	2	
In residence, 30th September, 1902		23

Places Admitted From.

City of St. Thomas	23	
		23

Sex.

Male	16	
Female	17	
		23

Receipts.

From the Province of Ontario	$ 535 43
From the City of St. Thomas	67 86
From payments by inmates	44 00
From other sources, subscriptions etc	1,212 40
Income from property	255 66
Total	$2,115 35

Expenditures.

Food of all kinds	$ 794 41
Clothing and furnishings	179 19
Fuel, light, cleaning, etc	255 40
Salaries and wages	546 60
Repairs, ordinary	158 32
Other expenses	103 99
Total	$ 2,037 91
Government aid for 1902	$471 10

HOUSE OF PROVIDENCE, DUNDAS.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1901	70	
Admitted	117	
Total number of inmates		187
Discharged	66	
Died	5	
In residence, 30th September, 1902	116	
		187

Places Admitted From.

City of Hamilton	79	
County of Wentworth	36	
Other Counties in Ontario	72	
Immigrants, foreigners, etc		
		187

Sex.

Male	72	
Female	115	
		187

Receipts.

From the Province of Ontario	$1,890 84
From the County of Wentworth	400 00
From other municipalities	889 90
From inmates	1,092 77
Income from property	350 00
Subscriptions and donations of private individuals	2,112 00
Other sources	1,110 00
Total	$7,845 51

Expenditures.

Food of all kinds	$3,369 80
Clothing, furniture, furnishings	1,492 30
Fuel, light and cleaning	840 48
Salaries	328 21
Repairs, ordinary	84 15
Other expenditures	1,113 86
Live stock and farm grounds	617 25
Total	$7,846 05
Government aid for 1902	$2,536 94

THE HOME FOR THE FRIENDLESS, CHATHAM.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1901	10	
Admitted	20	
Total number of inmates		30
Discharged	20	
Died		
In residence, 30th September, 1902	10	
		30

Places Admitted From.

Town of Chatham	14	
County of Kent	1	
Other counties	12	
Immigrants, foreigners, etc	3	
		30

Sex.

Males	22	
Female	8	
		30

Receipts.

From the Province of Ontario	$ 309 54
From the City of Chatham	2,000 00
From inmates themselves	7 00
From other sources, income and subscriptions	97 97
Total	$2,414 51

Expenditures.

Food of all kinds	$ 449 92
Clothing and furnishings	27 23
Fuel, light, cleaning, etc	538 83
Salaries and wages	368 28
Other expenses	662 34
Repairs, ordinary	13 35
Total	$2,059 95
Government aid for 1902	$301 63

THE WIDOWS' HOME, BRANTFORD.

Full particulars of the operations of this Institution will be found in the annexed summaries :

Movements of Inmates.

In residence 1st October, 1901	12	
Admitted	4	
Total number of inmates		16
Discharged	3	
Died	2	
In residence 30th September, 1902	11	
		16

Places Admitted From.

City of Brantford	15	
County of Brant	1	
		16

Sex.

Female	16	
		16

Receipts.

From the Province of Ontario	316 05
From inmates	230 01
Subscriptions and donations	360 08
From other sources and income	66 60
Total	$972 74

Expenditure.

Food of all kinds	319 13
Clothing and furnishings	112 06
Fuel, light, cleaning, etc	149 89
Salaries and wages	205 50
Repairs, ordinary, etc	52 63
Other expenses	91 63
Total	$930 84
Government aid for 1902	$307 79

THE HOME FOR THE FRIENDLESS, BELLEVILLE.

Full particulars of the operations of this Institution will be found in the annexed summaries :

Movements of Inmates.

In residence 1st October, 1901	10	
Admitted	11	
Total number of inmates		21
Discharged	9	
Died	2	
In residence 30th September, 1902	10	
		21

Places Admitted From.

From the City of Belleville	20	
From the County of Prince Edward		
From other counties, and foreigners	1	
		21

Sex.

Male	9	
Female	12	
		21

Receipts.

From the Province of Ontario	$227 64
From the City of Belleville	300 00
From inmates	52 00
Subscriptions and donations	
Total	$579 64

Expenditure.

Food of all kinds	$208 47
Clothing and furnishings	8 36
Fuel, light and cleaning	120 43
Salaries and wages	84 00
Other expenses	13 28
Repairs, ordinary	3 34
Total	$437 88
Government aid for 1902	$264 88

THE PROTESTANT HOME, PETERBOROUGH.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1901	17	
Admitted	12	
Total number of inmates		29
Discharged	8	
Died	2	
In residence, 30th September, 1902	19	
		29

Places Admitted From.

From the Town of Peterborough	19	
From the County of Peterborough and other counties	10	
		29

Sex.

Male	14	
Female	15	
		29

Receipts

From the Province of Ontario	$ 375 85
From the Town of Peterborough	.....
From inmates	391 50
Other sources	1,008 37
Total	$1,775 72

Expenditure.

Food of all kinds	$696 96
Clothing and furnishings	82 86
Fuel, light and cleaning	196 35
Repairs, ordinary	4 40
Salaries and wages	254 20
Other expenses	148 92
Out-door relief	82 81
Total	$1,466 00

Government aid for 1902 . . . $ 453 04

HOUSE OF PROVIDENCE, PETERBOROUGH.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence 1st October, 1901	37	
Admitted	66	
Total number of inmates		103
Discharged	43	
Died	5	
In residence 30th September, 1902	55	
		103

Places Admitted From.

From the Town of Peterborough	37	
From the County of Peterborough	57	
From other counties	9	
Immigrants, foreigner, etc		
		103

Sex.

Male	53	
Female	50	
		103

Receipts.

From the Province of Ontario	1,006 76
From municipalities for board of inmates	76 75
From inmates	697 48
Subscriptions and donations	361 87
Other sources	1,447 56
Total	$3,590 42

Expenditure.

Food of all kinds	$2,257 66
Clothing and furnishings	632 32
Fuel, light and cleaning	416 83
Repairs, ordinary	100 60
Other expenses	198 05
Total	$3,605 46

Government aid for 1902 . . . . $ 976 05

HOME FOR THE FRIENDLESS, WINDSOR.

Full particulars of the operations of the Institution will be found in the annexed summaries:

Movements of Inmates.

In residence 1st October, 1901	15	
Admitted	10	
Total number of inmates		25
Discharged	6	
Died	4	
In residence 30th September, 1902	15	
		25

Places Admitted from.

From the City of Windsor	25	
		25

Sex.

Male	11	
Female	14	
		25

Receipts.

From the Province of Ontario	$ 414 75
From the City of Windsor	2,100 00
From inmates	102 50
Subscriptions and donations	76 96
Other sources	153 10
Total	2,847 31

Expenditures.

Food of all kinds	613 22
Clothing and furnishings	40 56
Fuel, light and cleaning	120 01
Repairs, ordinary	44 38
Salaries and wages	42[illegible] 00
Other expenses	56 03
Outdoor relief	1,430 78
Total	2,728 98
Government aid for 1902	$ 365 05

HOME OF THE AGED AND INFIRM, COBOURG.

Full particulars of the operations of this Institution will be found in the annexed summaries:

Movements of Inmates.

In residence 1st October, 1901	8	
Admitted	2	
Total		10
Discharged	4	
Died	..	
In residence 30th September, 1902.	6	
		10

Places Admitted From.

Town of Cobourg	10	
		10

Sex

Male	7	
Female	3	
		10

Receipts.

From the Province of Ontario	$204 40
From the Town of Cobourg	25 00
From the County of Northumberland	75 00
Payments from inmates	387 00
Subscriptions and donations	472 99
Other sources	...
Total	1,164 39

Expenditures.

Food of all kinds	517 88
Clothing, furniture and furnishings	25 73
Fuel, gas, etc	129 00
Salaries and wages	153 00
Repairs, ordinary	51 94
Other expenses	39 88
Total	$917 43
Government aid for 1902	$205 17

HOME FOR THE AGED, LINDSAY.

Full particulars of the operations of this Institution will be found in the annexed summaries :

Movements of Inmates

In residence 1st October, 1901.....	17	
Admitted.....	7	
Total number of inmates.....		24
Discharged.....	3	
Died.....	1	
In residence 30th September, 1902.	20	
		24

Places Admitted From.

Town of Lindsay.....	10	
County of Victoria.....	14	
		24

Sex.

Male.....	21	
Female.....	3	
		24

Receipts.

From the Province of Ontario..	$455 98
From the Town of Lindsay.....	326 45
Payment from inmates.....	163 00
Subscriptions, donations, etc....	6 00
From the County of Victoria....	200 20
From other municipalities.....	446 94
From all other sources.....	3 50
Total.....	$1,602 07

Expenditures.

Foods of all kinds.....	$689 42
Clothing and furnishings.....	78 62
Salaries and wages.....	358 50
Fuel, light and cleaning.....	165 11
Repairs, ordinary, and printing, etc.....	37 45
Other expenses.....	233 98
Total.....	$1,563 08
Government aid for 1902.....	$485 52

St. PAUL'S HOME FOR THE AGED, CORNWALL.

Full particulars of the operations of this Institution will be found in the annexed summaries :

Movements of Inmates.

In residence, 1st October, 1901...	44	
Admitted.....	32	
Total number of inmates.....		76
Discharged.....	25	
Died.....	8	
In residence 30th September, 1902.	43	
		76

Places Admitted From.

Town of Cornwall.....	16	
County of Stormont.....	24	
Other Counties.....	36	
		76

Sex.

Male.....	43	
Female.....	33	
		76

Receipts.

From the Province of Ontario...$	1,041 39
From the Town of Cornwall.....	300 00
From other Municipalities.....	170 00
From inmates themselves.....	97 00
From other sources, income and subscriptions.....	1,120 10
From all other sources.....	42 00
Total.....$	2,770 49

Expenditures.

Food of all kinds.....$	1,762 52
Clothing and furnishings.....	262 20
Fuel, light, cleaning, etc.....	340 84
Salaries and wages.....	48 00
Repairs, ordinary, and medicine.	137 00
Other expenses.....	190 00
Total .....$	2,740 56
Government aid for 1902.....$	1,254 54

HOME FOR THE AGED AND INFIRM, BOWMANVILLE.

Full particulars of the operations of this Institution will be found in the annexed summaries :

Movements of Inmates.

In residence, 1st October, 1901	7	
Admitted	12	
Total		19
Discharged	11	
Died	2	
In residence, 30th September, 1902	6	
		19

Places Admitted From.

Town of Bowmanville	17	
County of Durham	2	
		19

Sex.

Male	10	
Female	9	
		19

Receipts.

From the Province of Ontario	$	116 62
From the Town of Bowmanville		350 00
From the Counties of Northumberland and Durham		75 00
Payments from inmates		95 00
Subscriptions and donations		5 61
From all other sources		55 37
Total	$	697 70

Expenditures.

Food of all kinds	$	245 86
Clothing, furniture & furnishings		33 99
Fuel, gas, etc		95 28
Salaries and wages		138 00
Repairs, ordinary		34 68
Other expenses		88 51
Total	$	636 32
Government aid for 1902	$	197 47

ORPHAN ASYLUMS.

The statistical tables on the following pages of this report show a considerable increase in the contributions to several of the institutions, while in some cases there is a slight falling off as compared with the past year.

The total number of children cared for in the Orphanages during the year was 4,092 as compared with 3,952 in 1901.

In the tables will be found full details.

The statistics relating to the sex and previous residence of the inmates are given in the following summary :

Sex.

Male	2,074	
Female	2,018	
		4,092

Previous Residence.

Received from cities in which Orphanages are located	3,056	
Received from counties in which Orphanages are located	363	
Received from other counties in the Province	594	
Immigrants and foreigners and unknown	79	
		4,092

TABLE No. 1.

Schedule C.—Orphanages.

Name of Orphanage.	Location.	Collective days' stay upon which computation of Orphanage rates is based.	Collective days' stay upon which computation of Refuge rates is based.	Amount received from all sources other than Government.	Computation at 2 cents per day.	Computation at 7 cents per day, being Refuge rates for adults.	Total Government grant for the year 1902.
				$ c.		$ c.	$ c.
Romon Catholic Orphan Asylum	Toronto	105,819	..	12,032 23	2,116 38	.....	2,116 38
Protestant Orphans' Home	"	56,841		6,995 02	1,136 82	.....	1,136 82
Girls' Home	"	30,826		5,473 05	616 52	.....	616 52
Boys' Home	"	28,559	...	5,997 99	571 18	.....	571 18
The Working Boys' Home	"	16,230		6,058 71	324 60	...	324 60
Infants' Home	"	20,770	9,552	3,930 92	415 40	668 64	1,084 04
St. Nicholas' Home	"	23,311	....	4,894 95	466 22	.....	466 22
Rescue Home for Women	"	9,895	...	2,099 13	197 90	.....	197 90
Childrens' Shelter	"	5,931		1,000 01	118 62	.....	118 62
Industrial Refuge	"	10,813	...	3,678 48	216 26	.....	216 26
St. Mary's Orphan Asylum	Hamilton	25,862	...	4,646 41	517 24	...	517 24
Protestant Orphan Asylum	"	1,095		*	21 90	.....	21 90
Boys' Home	"	23,244	..	3,835 99	464 88	.....	464 88
Girls' Home	"	9,480	..	1,955 39	189 60	...	189 60
Home for the Friendless	"	9,166	2,145	2,711 30 †	..	..... †	.....
Salvation Army Rescue Home	"	5,170		1,127 50	103 40	.....	103 40
Orphans' Home	Kingston	16,240	...	3,140 09 †	..	..... †	..
Honse of Providence	"	22,895	...	*	457 90	.....	457 90
Hotel Dieu Orphanage	"	13,750	....	908 60	275 00	.....	275 00
Orphans' Home	Ottawa	17,728	.....	*	354 56	.....	354 56
St. Patrick's Orphan Asylum	"	23,424	.	*	468 48	.....	468 48
St. Joseph's Orphan Asylum	"	62,049	.	7,812 15	1,240 98	...	1,240 98
Rescue Home and Children's Shelter	"	11,153	...	1,803 55	223 06	.....	223 06
Infants Home	"	11,050	.....	2,921 24	221 00	.....	221 00
Roman Catholic Orphans' Home	London	30,927	.	+	618 54	.....	618 54
Protestant Orphans' Home	"	14,526		2,778 69	290 52	...	290 52
Women's Refuge and Infants' Home	"	6,303	1,505	677 44	126 06	105 35	231 41
Rescue Home for Women	"	6,191	4,915	1,845 35	123 82	344 05	467 87
Protestant Home, Orphanage Branch	St. Catharin's	10,210	.	2,459 60	...	.....	..
St. Agatha Orphan Asylum	St. Agatha	19,140	.	1,994 99	382 80	.....	382 80
Orphans' Home	Fort William	14,099	...	1,104 00	281 98	.....	281 98
Berlin Orphanage	Berlin	3,672	.	211 94	73 44	...	73 44
Totals for 1902	..	666,369	18,117	94,094 72	12,615 06	1,118 09	13,733 10
Totals for 1901	.....	675,628	19,354	110,314 27	13,512 56	1,354 78	15,067 34

* Included with Refuge Branch.

† Receipts for the year being greater than expenditure, not entitled to Government grant.—Vic. 63, chap. 59.

TABLE No. 2.

SCHEDULE C.—Orphanages.

Name of Orphanage.	Location.	Number in residence 1st October, 1901.	Number admitted during the year ending 30th September, 1902.	Total number maintained during the year.	Number discharged during the year	Number of deaths during the year	Number remaining in residence on 30th September, 1902.
Roman Catholic Orphan Asylum	Toronto	285	297	582	270	28	284
Protestant Orphans' Home	"	156	70	226	77	.....	149
Girls' Home	"	85	71	156	69	3	84
Boys' Home	"	82	53	135	61	1	73
The Working Boys' Home	"	46	143	189	151	.....	38
Infants' Home	"	51	85	136	53	32	51
St. Nicholas' Home	"	62	63	125	62	.....	63
Rescue Home for Women	"	28	35	63	38	.....	25
Children's Shelter	"	13	39	52	31	3	18
Industrial Refuge	"	28	12	40	7	1	32
St. Mary,s Orphan Asylum	Hamilton	72	74	146	59	2	85
Protestant Orphan Asylum	"	3	..	3	.....	.....	3
Boys' Home	"	66	22	88	29	.....	59
Girls' Home	"	32	32	64	41	.....	23
Home for the Friendless	"	34	69	103	68	11	24
Salvation Army Rescue Home	"	8	108	116	100	3	13
Orphans' Home	Kingston	46	17	63	23	.....	40
House of Providence	"	50	63	113	65	1	47
Hotel Dieu Orphanage	"	41	66	107	59	..	48
Orphans' Home	Ottawa	53	63	116	67	..	49
St. Patrick's Orphan Asylum	"	67	50	117	48	1	68
St. Joseph's Orphan Asylum	"	176	176	352	190	1	161
Rescue Home and Children's Shelter	"	20	134	154	113	7	34
Infants' Home	"	29	199	228	99	94	35
Roman Catholic Orphans' Home	London	83	52	135	61	6	68
Protestant Orphans' Home	"	41	20	61	24	1	36
Women's Refuge and Infants' Home	"	20	40	60	35	3	22
Rescue Home for Women	"	30	111	141	107	2	32
Protestant Home, Orphanage Branch	St. Catharines	28	21	49	15	.....	34
St. Agatha Orphan Asylum	St. Agatha	49	21	70	14	.....	56
Orphans' Home	Fort William	34	33	67	12	.....	55
Berlin Orphanage	Berlin	14	21	35	21	.....	14
Totals for 1902		1,832	2,260	4,092	2,069	200	1,823
Totals for 1901		1,811	2,141	3,952	1,884	225	1,843

TABLE No. 3.

SCHEDULE C.—Orphanages.

Name of Orphanages.	Location.	Aggregate stay of inmates.	Total expenditure on maintenance account for the year ending 30th September, 1902.	Average cost per inmate per day.
			$ c.	cts.
Roman Catholic Orphan Asylum	Toronto	105,819	14,271 43	13.48
Protestant Orphans' Home	"	56,841	8,400 73	14.77
Girls' Home	"	30,826	6,305 22	20.45
Boys' Home	"	28,559	6,634 56	23.23
The Working Boys' Home	"	16,230	6,066 90	37.37
Infants' Home	"	30,322	5,425 86	17.89
St. Nicholas' Home	"	23,311	5,352 95	22.95
Rescue Home for Women	"	9,895	2,124 96	21.47
Children's Shelter	"	5,931	997 67	16.82
Industrial Refuge	"	10,813	4,172 67	38 57
St Mary's Orphan Asylum	Hamilton	25,862	5,113 49	19.77
Protestant Orphan Asylum	"	1,095	*	..
Boys' Home	"	23,244	4,188 18	18 01
Girls' Home	"	9,480	2,142 63	22.60
Home for the Friendless	"	11,311	2,501 39	22 11
Salvation Army Rescue Home	"	5,170	1,266 22	24.49
Orphans' Home	Kingston	16,240	2 874 15	17.69
House of Providence Orphanage	"	22,895	*	..
Hotel Dieu Orphanage	"	13,750	1,183 00	8.60
Orphans' Home	Ottawa	17,728	*	..
St. Patrick's Orphan Asylum	"	23,424	*	..
St. Joseph's Orphan Asylum	"	62,049	9,030 21	14.55
Rescue Home and Children's Shelter	"	11,153	20,062 42	18.49
Infants' Home	"	11,050	3,174 26	28.72
Roman Catholic Orphans' Home	London	50,927	*	..
Protestant Orphans' Home	"	14,526	2,922 72	20 12
Women's Refuge and Infants' Home	"	7,808	1,384 74	17.73
Rescue Home for Women	"	11,106	2,185 67	19.68
Protestant Home, Orphanage Branch	St. Catharines	10,210	1,722 48	16 87
St. Agatha Orphan Asylum	St. Agatha	19,140	2,387 59	12.47
Orphans' Home	Fort William	14,099	2,201 72	15.61
Berlin Orphanage	Berlin	3,672	647 20	17.60
Totals for 1902		684,486	106,741 02	15 59
Totals for 1901		694,982	97,470 30	19 25

* Included with expenditure of Refuge Branch.

SEPARATE REPORTS.

ROMAN CATHOLIC ORPHAN ASYLUM, TORONTO.

The following summaries show the operations of this Orphanage during the year :

Movements of Inmates.

In residence, 1st October, 1901....	285	
Admitted.....	297	
Total number of inmates.....		582
Discharged	270	
Died	28	
In residence, 30th September, 1902	284	
		582

Sex.

Male	305	
Female.....	277	
		582

Places Admitted From.

City of Toronto	536	
County of York	6	
Other parts of Ontario.....	40	
		582

The receipts of the Institution during the year, including the Government grant of $2,247.34, were $14,279.57, and the expenditures were $14,271.43.

Government aid for the year 1902, 2,116.38.

PROTESTANT ORPHANS' HOME, TORONTO.

The following summaries show the operations of this Institution during the past year :

Movements of Inmates.

In residence, 1st October, 1901....	156	
Admitted.....	70	
Total number of inmates		226
Discharged	77	
Died		
In residence, 30th September, 1902	149	
		226

Sex.

Male	133	
Female.....	93	
		226

Places Admitted From.

City of Toronto	223	
Other parts of Ontario	3	
		226

The receipts of this Institution during the year, including the Government grant of $1,291,52, were $8,286.54, and the expenditures were $8,400.73.

Government aid for the year 1902, $1,136.82.

GIRLS' HOME, TORONTO.

The following summaries show the operations of this Home during the year:

Movements of Inmates.

In residence, 1st October, 1901....	85	
Admitted.....	71	
Total number of inmates.....		156
Discharged	69	
Died	3	
In residence, 30th September, 1902	84	
		156

Places Admitted From.

City of Toronto.....	10	
Other parts of Ontario.....	138	
Aliens.....	8	
		156

The receipts of this Institution during the year, including the Government grant of $539.22, amounted to $6,012.27, and the expenditure $6,305.22.

Government aid for 1902, $616.52.

BOYS' HOME, TORONTO.

The following summaries show the operations of this Home during the year:

Movements of Inmates.

In residence, 1st October, 1901	82	
Admitted	53	
Total number of inmates		135
Discharged	61	
Died	1	
In residence, 30th September, 1902	73	
		135

Places Admitted From.

City of Toronto	122	
Counties of Ontario	13	
		135

The receipts of the Home during the year, including the Government grant of $602.74, amounted to $6,600.73, and the expenditures were $6,634.56.

Government aid for the year 1902, $571.18.

THE WORKING BOYS' HOME, TORONTO.

The following summaries show the operations of the Home during the year:

Movements of Inmates.

In residence, 1st October, 1901	46	
Admitted	143	
Total number of inmates		189
Discharged	151	
In residence, 30th September, 1902	38	
		189

Sex.

Male	189	
		189

Places Admitted From.

City of Toronto	189	
		189

The receipts of the Home during the year, including the Government grant of $310.04, amounted to $6,368.75, and the expenditures were $6,066.90.

Government aid for the year 1902, $324.60.

THE INFANTS' HOME AND INFIRMARY, TORONTO.

The following summaries show the operations of this Home during the past year:

Movements of Inmates.

In residence, 1st October, 1901	51	
Admitted	85	
Total number of inmates		136
Discharged	53	
Died	32	
In residence, 30th September, 1902	51	
		136

Sex.

Male	90	
Female	46	
		136

Places Admitted From.

City of Toronto	131	
Counties of Ontario	5	
		136

The receipts of the Home during the year, including the Government grant of $1,405.66 were $5,336.58, and the expenditures were $5,423.86.

Government aid for the year 1902, $1,084.04.

ST. NICHOLAS' HOME, TORONTO.

The following summaries show the operations of the Home during the official year:

Movements of Inmates.

In residence, 1st October, 1901...	62	
Admitted	63	
Total number		125
Discharged	62	
Died	..	
In residence, 30th September, 1902	63	
		125

Sex.

Male	125	
		125

Places Admitted from.

City of Toronto	125	
		125

The revenue of the Home during the year, including the Government grant of $453.20, was $5,348.15, and the expenditure was $5,352.95.

Government aid for 1902, $466.22.

THE RESCUE HOME FOR WOMEN, TORONTO.

The following summaries show the operations of this Home during the year:

Movements of Inmates.

In residence, 1st October, 1901....	28	
Admitted	35	
Total number of inmates		63
Discharged	38	
Died	..	
In residence, 30th September, 1902	25	
		63

Sex.

Female	13	
Male	50	
		63

Places Admitted from.

City of Toronto	28	
Other cities and counties	35	
		63

The revenue of the Home during the year, including the Government grant, amounted to $2,291.71, and the expenditure to $2,124.96.

Government aid for 1902, $197.90.

SALVATION ARMY, CHILDREN'S SHELTER, TORONTO.

The following summaries show the operations of this House during the year:

Movements of Inmates.

In residence, 1st October, 1901..	13	
Admitted	39	
Total number of inmates		52
Discharged	31	
Died	3	
In residence, 30th September, 1902	18	
		52

Sex.

Male	20	
Female	32	
		52

Places Admitted from.

City of Toronto	40	
Other parts of Ontario	12	
		52

The revenue of the Shelter during the year, including Government grant, amounted to $1,137.43, and the expenditure to $997.67.

Government aid for 1902, $118.62.

INDUSTRIAL REFUGE, TORONTO.

The following summaries show the operations of this Intitution during the year:

Movements of Inmates.

In residence, 1st October, 1901...	28	
Admitted...	12	
Total number of inmates		40
Discharged ..	7	
Died	1	
In residence, 30th September, 1902	32	
		40

Places Admitted from.

City of Toronto	35	
From counties in the Province....	3	
Foreigners	2	
		40

The revenue of the Asylum, including the Government great of $212.06, amounted to $3,890.54, and the expenditure to $4,172.67.

Government aid for 1902, $216,26.

ST. MARY'S ORPHAN ASYLUM, HAMILTON.

The following summaries show the operations of this asylum during the year:

Movements of Inmates.

In residence 1st October, 1901....	72	
Admitted	74	
Total number of inmates....		146
Discharged	59	
Died	2	
In residence, 30th September, 1902	85	
		146

Sex.

Male	59	
Female	87	
		146

Places Admitted from.

City of Hamilton	122	
County of Wentworth	3	
Other counties and countries	21	
		146

Including the Government grant of $458.86, the revenue of the Asylum during the year amounted to $5,105.27, and the expenditure to $5,113.49.

Government aid for 1902, $517.24.

PROTESTANT ORPHAN ASYLUM, HAMILTON.

The following summaries show the operations of this Asylum during the year:

Movements of Inmates.

In residence, 1st October, 1901....	3	
Admitted		
Total number of inmates		3
Discharged		
Deaths		
In residence, 30th September, 1902	3	
		3

Sex.

Male	3	
Female		
		3

Places Admitted from

City of Hamilton	3	
		3

The receipts and expenditures are included in the financial statements of the Aged Women's Home, vide Schedule "B" Refuge Report.

Government aid for 1902, $21.90.

BOYS' HOME, HAMILTON.

The following summaries show the operations of this Home during the year:

Movements of Inmates.			
In residence, 1st October, 1901	66		
Admitted	22		
Total number of inmates		88	
Discharged	29		
Died	..		
In residence, 30th September, 1902	59		
			88
Places Admitted from.			
Hamilton City	88		
County of Wentworth	..		
			88

The receipts of the Home during the year, including Government grant, were $4,383.05, and the expenditures were $4,188.18.

Government aid for 1902, $464.88.

GIRL'S HOME, HAMILTON.

The following summaries show the operations of this Home during the year:

Movements of Inmates.			
In residence, 1st October, 1901	32		
Admitted	32		
Total number of inmates		64	
Discharged	41		
Number of deaths	..		
In residence, 30th September, 1902	23		
			64
Places Received from.			
City of Hamilton	64		
			64

The revenue of the Home during the year, including Government grant, was $2,192.35, and the expenditure was $2,142.63. Government aid for 1902, $189.60.

HOME FOR THE FRIENDLESS AND INFANTS' HOME, HAMILTON.

The following summaries show the operations of this Home during the year:

Movements of Inmates.			
In residence, 1st October, 1901	34		
Admitted	69		
Total number of inmates		103	
Discharged	68		
Died	11		
In residence, 30th September, 1902	24		
		103	
Sex.			
Male (infants)	44		
Female "	59		
			103
Places Received from.			
City of Hamilton	89		
County of Wentworth	7		
Other places and counties	7		
			103

The revenue of the Home, including Government grant, was $3,125.62, and the expenditures $2,501.39.

NOTE.—Receipts for year being greater than expenditures, not entitled to Government grant.—Vic. 63, Chap 59.

SALVATION ARMY REFUGE HOME, HAMILTON.

The following summaries show the operations of this Asylum during the year:

Movements of Inmates.

In residence, 1st October 1901	8
Admitted	108
Total number of inmates	116
Discharged	100
Died	3
In residence, 30th September, 1902	13
	116

Sex.

Male	16
Female	100
	116

Places Admitted from.

City of Hamilton	38
County of Wentworth	..
Other counties and countries	78
	116

The revenue of the Home during the year amounted to $1,235.50, and the expenditure to $1,266.22. Government aid for 1902, $103.40.

ORPHAN'S HOME, KINGSTON.

The following summaries show the operations at this Institution during the year:

Movements of Inmates.

In residence, 1st October, 1901	41
Admitted	17
Total	63
Discharged	23
Died	..
In residence 30th September, 1902	40
	63

Sex.

Male	33
Female	30
	63

Places Admitted from.

City of Kingston	37
County of Frontenac	20
Other counties and countries	6
	63

The revenue of the Home during the year including the Government grant was $3,460.71, and the expenditure was $2,874.15.

NOTE. Receipts for the year being greater than expenditure, not entitled to Government grant.—VIC. 63, chap. 59.

ORPHANAGE OF THE HOUSE OF PROVIDENCE, KINGSTON.

The following summaries show the operations of this Orphanage during the year:

Movements of Inmates.

In residence, 1st October, 1901	50
Admitted	63
Total	113
Discharged	65
Died	1
In residence, 30th September, 1902	47
	113

Sex.

Male	95
Female	18
	113

Places Admitted from.

City of Kingston	18
County of Frontenac	11
Other counties and countries	84
	113

The receipts and expenditure of the Orphanage are included with those of the House of Providence, and cannot be shown separately.

Government aid for 1902, $457.90.

HOTEL DIEU ORPHAN ASYLUM, KINGSTON.

The following summaries show the operations of this Asylum during the year:

Movements of Inmates.

In residence, 1st October, 1901	41	
Admitted	66	
Total		107
Discharged	59	
Deaths		
In residence, 30th September, 1902	48	
		107

Sex.

Male	5	
Female	102	
		107

Places Admitted from.

City of Kingston	85	
County of Frontenac	9	
Other counties and countries	13	
		107

The income of the Asylum during the year, including the Government grant, amounted to $1,178.54, and the expenditure to $1,183.00.

Government aid for 1902, $275.00.

ORPHAN'S HOME, OTTAWA.

The following summaries show the operations of this House during the year.

Movements of Inmates.

In residence in October, 1901	53	
Admitted	63	
Total number of inmates		116
Discharged	67	
Died		
In residence 30th September, 1902	49	
		116

Sex.

Male	72	
Female	44	
		116

Places Admitted from.

City of Ottawa	103	
County of Carleton	5	
Other counties	5	
Other countries	3	
		116

The revenue of the Home, including Government grant, was $5,372.60 and the expenditures were, Refuge Branch included, $4,209.34.

Government aid for 1902, $354.56.

ST. PATRICK'S ORPHAN ASYLUM, OTTAWA.

The following summaries show the operations of this Asylum during the year:

Movements of Patients.

In residence 1st October, 1901	67	
Admitted	50	
		117
Total number of inmates		
Discharged	48	
Died	1	
In residence 30th September, 1902	68	
		117

Sex.

Male	56	
Female	61	
		117

Places Admitted from.

City of Ottawa	106	
County of Carleton	5	
Other parts of the Province	2	
Other countries	4	
		117

The receipts and expenditures of this Institution are included in the financial statement of the Refuge Department *vide* Schedule B Refuge Report.

Government aid for 1902, $468.48.

ST. JOSEPH'S ORPHAN ASYLUM, OTTAWA.

The following summaries show the operations of this Charity during the year:

Movements of Inmates.

In residence, 1st October, 1901....	176	
Admitted.....	176	
Total number of inmates.....		352
Discharged.....	190	
Died.....	1	
In residence, 30th September, 1902	161	
		352

Sex.

Male.....	192	
Female.....	160	
		352

Places Admitted from.

City of Ottawa.....	246	
County of Carleton.....	96	
Other counties and countries.....	10	
		352

The receipts of the Institution including Government grant were $9,003.69, and the expenditures 9,030.21. Government aid for 1902, $1,240.98.

THE RESCUE HOME AND CHILDREN'S SHELTER, OTTAWA.

The following summaries show the operations of this Home during the year:

Movements of Inmates.

In residence, 1st October, 1901....	20	
Admitted during the year.....	134	
Total number of inmates.....		154
Discharged.....	113	
Died.....	7	
In residence, 30th September, 1902	34	
		154

Sex.

Male.....	39	
Female.....	115	
		154

Places Admitted From.

City of Ottawa.....	117	
County of Carleton.....	13	
Other counties and countries.....	24	
		154

The revenue of the Home including Government grant was $1,957.21 and the expenditures were $2,062.42. Government aid for 1902, $223.06.

INFANT'S HOME, OTTAWA.

The following summaries show the operations of this Home during the official year:

Movement of Inmates.

In residence, 1st October, 1901....	29	
Admitted.....	199	
Total number of inmates.....		228
Discharged.....	99	
Died.....	94	
In residence, 30th September, 1902	35	
		228

Sex.

Male.....	103	
Female.....	125	
		228

Places Admitted From.

City of Ottawa.....	132	
County of Carleton.....	89	
Other counties in Ontario.....	7	
		228

The revenue of the Home during the year, including the Government grant of $215.64 was $3,136.88, and the expenditure was $3,174.26. Government aid for 1902, $221.00.

ROMAN CATHOLIC ORPHANS' HOME, LONDON.

The following summaries show the operations of this Orphanage during the year

Movements of Inmates.

In residence, 1st October, 1901	83	
Admitted	52	
Total number of inmates		135
Discharged	64	
Died	6	
In residence, 30th September, 1902	68	
		135

Sex.

Male	73	
Female	62	
		135

Places Admitted From.

City of London	23	
County of Middlesex	1	
Other parts in Ontario	111	
		135

The receipts and expenditures are included in the financial statement of R.C. House of Refuge *vide* Schedule "B" Refuge Report Government aid for 1902, $618.54

PROTESTANT ORPHAN'S HOME, LONDON.

The following summaries show the operations of this Orphanage during the year:

Movements of Inmates.

In residence, 1st October, 1901	41	
Admitted	20	
Total number of inmates		61
Discharged	24	
Died	1	
In residence, 30th September, 1902	36	
		61

Sex.

Male	35	
Female	26	
		61

Places Admitted From.

City of London	61	
Other parts of Ontario		
		61

The revenue of the Home including the Government grant, was $3,075.29, and the expenditures were $2,922.72.

Government aid for 1902, $290.52.

WOMEN'S REFUGE AND INFANTS' HOME, LONDON.

The following summaries show the operation of this Charity during the year:

Movements of Inmates.

In residence, 1st October, 1901	20	
Admitted	40	
Total number of inmates		60
Discharged	35	
Died	3	
In residence, 30th September, 1902	22	
		60

Sex.

Male	18	
Female	42	
		60

Places Admitted From.

City of London	58	
County of Middlesex	2	
		60

The receipts during the year, including the Government grant of $920.92, were $983.63, and the expenditures $1,384.74.

Government aid for 1902, $231.41.

THE RESCUE HOME FOR WOMEN, LONDON.

The following summaries show the operations of this Asylum during the year

Movements of Inmates.

In residence, 1st October, 1901....	30	
Admitted	111	
Total number of inmates		141
Discharged	107	
Died	2	
In residence, 30th September, 1902	32	
		141

Sex.

Male	25	
Female	116	
		141

Places Admitted From.

City of London	111	
Middlesex and other counties	30	
		141

The revenue of the Asylum, including Government grant, was $2,214.81, and the expenditure $2,185.67.

Government aid for 1902, $467.87.

PROTESTANT HOME (ORPHANAGE BRANCH), ST. CATHARINES

The following summaries show the operations of this Charity during the year:

Movements of Inmates.

In residence, 1st October, 1901....	28	
Admitted	21	
Total number of inmates.....		49
Discharged	15	
Died	..	
In residence, 30th September, 1902	34	
		49

Sex.

Male	25	
Female	24	
		49

Places Admitted From.

City of St. Catharines.....	38	
County of Lincoln	7	
Other countries	4	
		49

The revenue and expenditure of the House during the year, including the Government grant, amounted to $2,459.60 and $1,722.48.

NOTE—Receipts for the year being greater than expenditure, not entitled to Government grant—Vic. 63., Cap 59.

ST. AGATHA ORPHAN ASYLUM, ST. AGATHA.

The following summaries show the operations of this Asylum during the year:

Movements of Inmates.

In residence, 1st October, 1901....	49	
Admitted	21	
Total number of inmates.....		70
Discharged	14	
Died	..	
In residence, 30th September, 1902	54	
		70

Sex.

Male	37	
Female	33	
		70

Places Admitted From.

City of Guelph	4	
County of Waterloo.....	61	
Other counties.....	4	
Other countries	1	
		70

The revenue of the Asylum was $2,376.67, including the Government grant of $381.68, and the expenditure $2,387.69.

Government aid for 1902, $382.80.

ORPHANS' HOME, FORT WILLIAM.

The following summaries show the operations of this Charity during the year:

Movements of Inmates.		
In residence, 1st October, 1901	34	
Admitted	33	
Total number of inmates		67
Discharged	12	
Died	..	
In residence, 30th September, 1902	55	
		67

Sex.		
Male	24	
Female	43	
		67
Places Admitted From.		
District of Thunder Bay	67	
		67

The revenue of the Home, including the Government grant was $1,760.10, and the expenditure $2,201.72.

Government aid for 1902, $281.98.

BERLIN ORPHANAGE, BERLIN.

The following summaries show the operations of this Orphanage during the year:

Movements of Inmates.		
In residence, 1st October, 1901	14	
Admitted	21	
Total number of inmates		35
Discharged	21	
Died	..	
In residence, 30th September, 1902	14	
		35

Sex.		
Male	19	
Female	16	
		35
Places Admitted From.		
Berlin	7	
Waterloo	26	
Other counties in Ontario	2	
		35

The revenue of the Home, including the Government grant, was $606.26, and the expenditures were $647.20.

Government aid for 1902, $73.44.

THIRTY-FIRST ANNUAL REPORT

UPON THE

ONTARIO INSTITUTION

FOR THE

EDUCATION OF THE BLIND

BRANTFORD

BEING FOR THE YEAR ENDING 30TH SEPTEMBER

1902

PRINTED BY ORDER OF

THE LEGISLATIVE ASSEMBLY OF ONTARIO.

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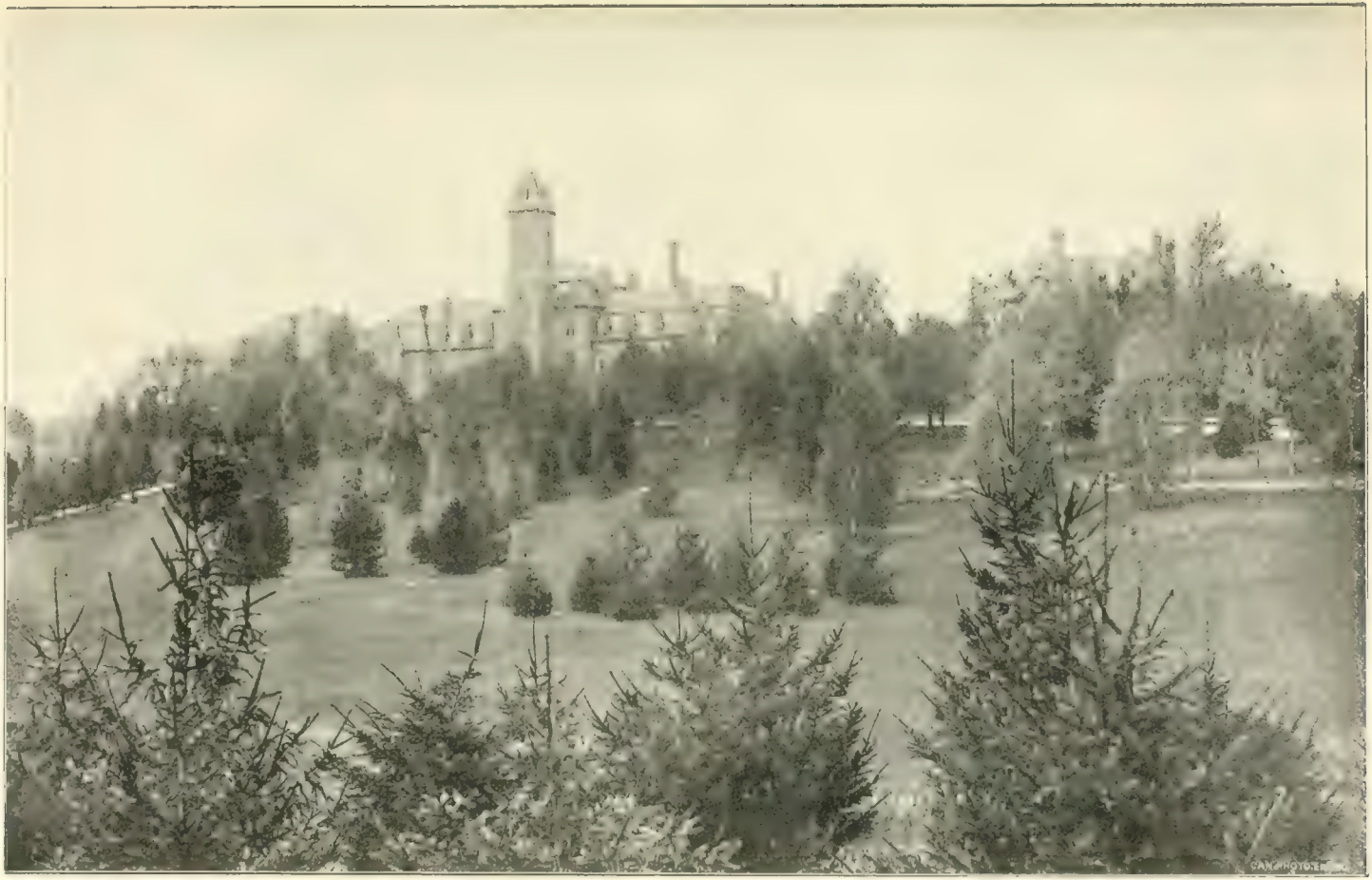


ONTARIO INSTITUTION FOR THE BLIND. FRONT VIEW.

Parliament Buildings,

Toronto, November, 1902.

Sir,--I beg to transmit herewith the Thirty First Annual Report upon the Institution for the Instruction and Education of the Blind, at Brantford, for the year ending 30th September, 1902.

I have the honor to be, Sir,

Your obedient servant,

T. F. CHAMBERLAIN,
Inspector.

The Honorable J. R. Stratton, M.P.P.,
Provincial Secretary.

Parliament Buildings,
Toronto, November, 1902.

To His Honour The Honourable Sir Oliver Mowat, Knight Grand Cross of the Most Distinguished Order of Saint Michael and Saint George, Member of the Queen's Privy Council for Canada, and Lieutenant-Governor of the Province of Ontario.

May it Please Your Honour:

I have the honour to submit herewith the Thirty-First Annual Report upon the Institution for the Education of the Blind, at Brantford, for the year ending 30th September, 1902.

I have the honour to be,
Your Honour's most obedient servant,

J. R. STRATTON,
Provincial Secretary.

THE INSTITUTION

FOR THE

EDUCATION OF THE BLIND.

In submitting the Thirty-First Annual Report of the Institution for the Education of the Blind, at Brantford, I am pleased to be able to state that the past year has been one of progress and harmony in every department. The teachers and instructors of the pupils, and the officers, have performed their respective duties with credit to themselves and in the best interests of the school.

The school opened in September, as usual, with 107 pupils on the roll, namely, 52 males and 55 females. Of these, seventeen entered for the first time; the majority of the others had been in attendance for several sessions. Eight or ten more pupils are expected before the new year, and this will bring up the attendance to about the usual number. It will be seen by the Principal's report that eighteen of the pupils of last year have retired by graduating, or from other causes. The literary work of the school, the music classes, and the industrial work, the latter including piano tuning, willow work, typewriting, sewing, knitting, fancy work, and domestic science, are fully set forth in the report of the Principal. The annual meeting of Instructors of the Blind was held at Raleigh, N.C., during the vacation.

As will be seen by the report of Dr. Marquis, the health of the pupils and officers has been very good during the past year; only one death occurred, that of a little girl of ten years, caused by a tumor pressing upon the brain.

The farm has been more productive than in past years, the fruit being very abundant.

There have been a few changes in the staff of teachers and employees during the year, but these in no way interfered with or impaired the routine work. While every attention has been given to the literary, musical and industrial training of the pupils, their physical condition has been well cared for by exercising at regular intervals in the open air when the weather permitted, and in the gymnasium. They are obliged to attend service in the chapel of the Institution on Sabbath afternoons, and also in the various churches in the city in the forenoon, as well as week day services, so that their religious and moral instruction is well provided for.

It will be seen by the report of the examiner in music that the music classes acquitted themselves well, their standing being very creditable. The average marks obtained by the pupils at their literary examination, held by Mr. Wadsworth, Public School Inspector for the County of Norfolk, are quite equal to the marks obtained by sight-seeing pupils in our Public Schools.

The reports of Dr. Marquis, the attending physician, and Dr. Bell, oculist, for the year are very satisfactory.

On the occasion of my inspections during the year, I have found the accounts and records of the Bursar satisfactorily kept. The Principal's office, also, was in good order, and the arrangement of classes, the course of studies, etc., well managed.

The farm stock, and farm implements, have been well cared for during the year.

The average cost per pupil for the year was $263.31, and the total expenditure $29,227.98. This will not be materially changed during the coming year. I have to thank the Principal, the teachers, officers and employees for their courtesy to me when making my visits of inspection.

PRINCIPAL'S REPORT.

T. F. Chamberlain, Esq., M.D., Inspector:

Sir,—I have the honor to submit my Report for the year ending September 30th, 1902.

The above date, coming within a fortnight of our pupils reassembling after their long summer vacation, makes the period for preparing this Report somewhat inconvenient in many respects. That so long a time should elapse before, by constitutional usage, the report can be utilized as a means of spreading information regarding the operations of the institution, is also to be regretted.

Pupil Population.

The session of 1901-2 closed with a pupil population of 113. Of these 57 were males and 56 females. Our numbers on the 30th of September, 1902, were 107, represented by 52 males and 55 females. Of pupils in residence during the past session, 87 had returned, 43 males and 44 females. Seventeen pupils had entered for the first time, 9 males and 8 females. These, with three former pupils who had been absent for a term, made up the total of 107 as above given. Eight pupils who have been temporarily detained at home have signified their expectations of returning at an early date, and two new applicants are on the eve of arriving. Others are in prospect, so that we may anticipate a somewhat increased attendance, as compared with last year. Eighteen pupils who have retired remain to be accounted for, as follows:

	Males.	Females.	Total.
Graduated—			
In Piano Tuning (advanced in music)	1		1
In Music (artist's diploma A. T. Coll. M., Literary and Industrial)		1	1
Other Causes—			
To take higher course of study preparatory to entering college	1		1
Secured employment	3		3
Impaired health	1		1
Mentally defective	1		1
Physical infirmity (other than blindness)	1		1
Domestic requirements		4	4
Advanced in music and industrial		2	2
Various causes	2	1	3
	10	8	18

The following shows the ages of the newly admitted pupils:

Males.		Females.	
Thirty years	1	Twenty-one years	2
Twenty-five "	1	Fifteen "	2
Nineteen "	1	Twelve "	1
Fifteen "	1	Six "	2
Thirteen "	1	Five "	1
Twelve "	1		8
Eleven "	1		
Ten "	1		
Five "	1		
	9	Total	17

Our disinclination to admit pupils over twenty-one years of age, unless under very exceptional circumstances, has influenced the decisions arrived at in many cases. The two male adults above mentioned could not have been excluded without inflicting upon them cruel hardship, and I have good reason to believe they will repay, by their diligence and good conduct, the waiving of the rule in their behalf.

It may here be noticed that,—our careful discrimination in the last-named regard notwithstanding,—the number of new pupils admitted is in excess of that of late years. On our books, too, are the names of several children, whose condition points them out as probable applicants in the near future. The friends of the latter will, from time to time, be communicated with, either by personal visit or correspondence, until the desired result is secured by the children being admitted. The increased number of very young pupils, both present and prospective, is a gratifying evidence of the confidence felt by the public generally in the personal care and the character of the education such receive when placed in our charge. It is always desirable that parents should pay a visit to the Institution, either when the pupils enter or after they are well settled into their new work. The arrangements conducive to the health, comfort and progressive improvement of the pupils are often a matter of agreeable surprise even to those who have been fairly well informed as to the general management. It may be well, however, to mention that, while not, I trust, wanting in hospitality, we cannot undertake to entertain other than immediate relatives, and those only for a few hours. Lodgings, if required, should be secured elsewhere. An electric car service gives ready access to the numerous city hotels.

Prominent Events.

Three prominent events of the past year may properly claim attention. They were, the Biennial Convention of American Instructors of the Blind, which met at Raleigh, N.C., in July, and at which the Institution was represented by the Principal and Mr. W. B. Wickens, our senior literary teacher; a conference of all classes of the representatives and friends of the Blind; in London, England, of which a verbatim report has been courteously supplied to us; and the public recognition of the relations of the Institution to the higher schools of Music which marked our closing concert in the month of June. The latter occasion will be noticed later on in connection with the Musical department. On the others, I may make a few remarks.

The constitution of the two gatherings was essentially different, so, to a large extent, was the tone pervading the debates. In many of the experiences narrated, however, there was a similarity. In what might be termed higher conceptions, the Raleigh Convention was decidedly in advance; in the limitations and difficulties encountered, there was a sympathetic consciousness between them. The social conditions in Great Britain are very different from ours, or those surrounding our American co-labourers. The British friend or educator of the Blind evidently looks on them as a naturally dependent class, one in which the means of self-help are rare. On this continent we recognize, of course, the defects under which the blind labor, but our youthful blind population are—with, of course, some exceptions—neither indigent nor helpless. There are in Great Britain, it is true, the Worcester College for the blind sons of the wealthy, who are there trained for professions, and the Royal Normal School at Norwood, under Doctor F. J. Campbell, who received his ideas and inspiration originally at the Perkins Institute, So. Boston. In Dr. Campbell's admirably-

conducted school the work is very similar to that of the best institutions in North America. There is a distinctly educational side to many other British institutions, with able administrators at the head. But the eleemosynary atmosphere seems more or less to pervade most of them, whilst many are simply Homes or Asylums, where the blind are sheltered and industrially employed. Legislation has occasioned a decided advance in those of an educational character. Attached to the public or board schools in populous centres, classes for the blind do good work, and the institutions are also subject to inspection while receiving a per capita grant if the results come up to the specified standard. But the age limit is sixteen years, and there are distasteful references in the discussions of the Convention to that authority, so repugnant to Canadian ideas and habits, "the Board of Guardians," administrators of parochial relief, as the body from which funds for pupils whose ages exceed the maximum have to be collected. The educational training of the blind in the Mother land will never attain full vigour and elasticity until it is less dependent on charity in its various phases on the one hand, and the pauper's dole on the other. Deeply interesting as is the report in question, still, viewed from our more independent point of view, the general effect is not exhiliarating.

The spirit of the Raleigh Convention, on the contrary, was decidedly stimulating. The education of the blind on this side of the Atlantic has been, as a whole, in advance of that of Great Britain. As between Canada and the United States in the education of the blind, political and geographical distinctions do not count. The Convention ten years ago met in Brantford. But for the occurrence of the St. Louis Convention in 1904, it would probably have been entertained at Halifax, N.S., in that year, where Dr. Fraser, himself a blind man, has built up an institution, now receiving the blind youth of the Maritime Provinces and Newfoundland. The funds of the American Printing House for the Blind, which issues from its presses a great mass of Anglo Saxon literature of the highest and purest type, are supplemented by a provision of Congress representing $10,000 per annum. This, as affecting the cost of production, is no less an advantage to us than to our co laborers in the States. The American Bible Society gives us the benefit of its reduced price list, and enables the blind of Canada to possess the Holy Scriptures, or any portions thereof, in embossed type or cipher at the lowest possible cost. Other printing houses maintained by American capital are also accessible as our needs require. Most beneficial, too, is the interchange of thoughts, ideas and experience, which is obtained by meeting men and women of brilliant minds and strenuous purpose, whose lives have been devoted to the education of the blind. Happily, several of the institutions in the United States are in such hands. Several of these are free from the pernicious system which prevails in too many States of changing Government officials with every political turnover. Such men as I refer to are the "Old Guard" of the service, and their counsels are invaluable.

Another reason for a closer affinity with the American than we are able to enjoy with the British institutions is the different point print or cipher types which they have adopted. The original cipher or "Braille" type has undergone modifications, and is, I observe, the subject of some controversy in Great Britain. But the American "Braille" has been still further amended, while the New York "point," which is used by ourselves and many of the American institutions, and is the system recognized by the American Printing House for the Blind, differs radically from both the English and American Braille. It is a matter of deep regret that one uniform system cannot be agreed upon by all instructors of the blind, at least in English-speaking lands, but the controversies in the United States

alone over this vexed question make all hope of common action extremely improbable.

The impression created by the late Convention at Raleigh on the mind of an observer are set forth in a report which appeared in the Toronto Globe, and from this I quote somewhat fully:

"The general trend and result of the deliberations may be described pretty nearly as follows: The work of the instructor being with the blind of school age, that is, under 21 years and mainly from 6 to 20, the educational idea must always predominate. No institution is complete that does not embrace in its outfit a regular course of physical, literary, musical and industrial training, and these in due proportions, varied in application of necessity, according to the ages, circumstances and conditions at which or under which pupils are admitted. The building up of a healthy body and well stored mind by these united influences is to be the prime and ever present object of the educator, not in the first place the preparation of the student for some particular trade or profession in life. That may come incidentally, as it does to sighted youths, from instruction received, and is by no means to be discouraged, but is an incidental rather than the main purpose of education. This view does not conflict with the line of instruction in any of the best managed institutions of the day, but the educational idea should always predominate. Concurrently with this is the high place music is regarded as taking in the mental training of the blind. Music is in fact the right arm of the instructor from the time the pupil enters the kindergarten to his graduaion with ability to become either a vocal or instrumental performer or a teacher of others. But here again music is not to be measured in its effects exclusively by artistic results. Its even greater usefulness, both in a moral and social aspect, is fully recognized. The same remark applies to the several industries in which the blind receive instruction. They are necessary to the cultivation of good habits, if never turned to account as a means of livelihood. The beneficial effects too, of systematic training are in no case more to be desired than in that of the blind youth. Their influence for good, both in relation to the growth of the body and the healthy development of the mind were strongly emphasized. The adoption, so far as the circumstances admit, of an educational standard in the literary branch was also regarded as essential and is becoming very general. Several instances were cited, in answer to a demand for information, of students of institutions for the blind having taken higher courses or fought their way to literary distinction. But these have been owing rather to some innate personal characteristics than to a merely academic career. Here, again, responsibility for laying the foundations for such successes rather than for exceptional assistance was maintained. The value of particular industries to the blind was also considered under several heads. But some means of employment, if of value to the adult blind, were not regarded as proper or suitable for introduction into the school curriculum, and others, if here and there available, were seen to be likely to be overweighted by sighted competition. Manual training, however, is always attached to a well ordered institution. Closely connected with the study and profession of music is the business of piano-tuning. The reputation of the blind piano tuner, it is gratifying on all hands to learn, has been established beyond a doubt

Summed up in a few words, experience seems to show that, while manual training is essential to proper moral and physical development, and while, in giving effect to this idea, industries may be taught which supply profitable avocations, yet that, as with the sighted, the true resource of the blind man or woman must be found in a well furnished

intellect, a sound, moral training, and good physical development. How the individual in which these are combined may apply the result most profitably has to be determined by surrounding conditions."

The Literary Classes.

For the state of the literary classes and the aspect of the Institution generally, as it has presented itself to one who came into personal contact with it for the first time, I may refer you to the report of Dr. J. J. Wadsworth, the examiner for the year. If I have any complaint to make of that report it is the, I hope inoffensive one, that in some respects it is too favorable rather than otherwise. The fact is that, unacquainted with our pupils attainments, and prompted by a kindly regard for their feelings, the tests applied were in some cases easier than they might have been. Pupils, in a few instances, even complained that from this cause justice was hardly done to their attainments. We can appreciate the generous consideration which spared them, but our examiners may be well assured that blind pupils can be quite as safely put upon their mettle as sighted ones.

Music Classes.

The past session in this department of study was a memorable one. For several years we have adopted the curriculum of the Toronto College of Music for our course, and have had the pleasantest relations with its able and most kindly disposed head. Under the advice of our male music teacher, Mr. E. A. Humphries, who is an enthusiast in his profession, several of our pupils submitted themselves for the College examinations of various grades. Those in pianoforte were conducted by Mr. W. E. Fairclough, who was also the examiner of the Institution for the year, during his visit to Brantford. The papers in theory were sent to Mr. Wellsman, another member of the College staff. The results were as follows :—

1, 3rd year, Piano, first-class honors ; Artist's Diploma (A.T. Coll. M.)
1, 2nd year, Piano, second-class honors.
2, 1st year, Piano, first-class honors.
2, 1st year, Piano, second-class honors.
1, 2nd year, Theory.
1, 1st year, Theory.

The conferring of the Artist's Diploma was conditional on the performance by the candidate of a concerto with orchestral accompaniment in the presence of Dr. Torrington, the managing director of the College. The young lady in question underwent this rather trying ordeal successfully at our closing concert, the orchestral part being supplied by the talented members of the Darwin family, of Brantford. The diploma and the several certificates were distributed by Dr. Torrington in person, who also spoke at some length in terms of congratulation of the attainments of the blind pupils and the general character of the musical education provided for them. It is very pleasant to learn that the new A.T. Coll. M. has already met with much encouragement as a music teacher. Her whole course at the Institution had been marked by the most exemplary conduct and persevering attention to her studies. The success of the pupils above mentioned has stimulated others to attempt similar achievements, and the tone of the music classes generally can but be raised by such efforts. The relation of music to the education of the blind is one that must always take a foremost place in the discussions of their instructors. Among most

Vocal Class.—June, 1902.

of these I find the views I have expressed in former reports are very generally held, namely, that music should be taught to the blind wherever a capacity for learning it exists, not merely as a possible means of livelihood, but as giving zest and enjoyment to what are more or less beclouded lives.

Piano Tuning.

At the London Conference the question how to find profitable employment for the blind may be said to have preponderated, for reasons already suggested. There, as with ourselves, the question is, however, not what can a blind man or woman do. The possibilities for doing are wide enough, the opportunities for doing profitably and successfully have serious limitations. Increased competition accentuates these difficulties. On the other hand it is gratifying to know that in piano tuning blind workmen are pre-eminently successful. I am able to say, with much satisfaction, that, of the large body of blind youths who have graduated from this Institution in that department during the past twenty-five years, not one has been unsuccessful, save and except for such sufficient reasons as would affect the sighted equally with the blind. Others who have not proceeded to graduation have been able to enter factories where their final qualification has been assured by the practical experience there afforded. One pupil has graduated in piano tuning this year, and two others have retired with the prospect of securing positions as last above mentioned. We have now twenty-four male pupils under instruction in the tuning class.

The Willow Shop.

This department has undergone a considerable change in its general character during the past three or four years. Where formerly from fifteen to twenty-five more or less advanced workers could be found, a large proportion being adults, we have now four or five. But the willow shop has its usefulness in another sense. The number under instruction is but slightly diminished, being maintained by junior pupils who would otherwise be unoccupied during the later hours of the day. They are thus encouraged in industrious habits, and taught cane chair seating and making light goods in cane or willow, in which art many of them become quite proficient. Some of these will extend the time spent in the shop as their ability to take that course increases, and the necessity for literary studies lessens. In connection with this industry I may again call attention to its value to a certain class of the blind and the causes why some fail to succeed in it. Its adaptability to their condition has again and again been amply demonstrated. The failures are mainly due to one of two causes. First, want of energy, perseverance and moral stamina. These are not peculiar to the blind by any means. Secondly, lack of capital, even on a small scale, and that friendly assistance which sighted, as well as blind beginners, need in their earlier efforts. Graduates from this Institution are liberally treated. They receive an outfit of models, tools and material that gives them a good start. If they have a home and relatives to shelter and help them they usually do well. But if cast at once on their own resources the struggle is hard and the results are doubtful. Before a trade is secured the stock of material is exhausted, principal as well as profits are eaten up and the worker is at a dead-lock; hence disappointment, discouragement, and often the throwing up of the trade, the waste of the outfit and a resort to peddling or some other possible means of livelihood. A workshop in some populous centre, where blind adults may be instructed and graduates without homes temporarily employed seems to be a necessity. In Great Britain arrangements of this description are almost universal. The blind worker has little or no difficulty in accomplishing the

mechanical part of his business. It is on the commercial side that he fails. And there are thousands of sighted men employed in workshops of various kinds to-day who, while excellent mechanics, would be abject failures if required to face a mercantile venture. Need we then be surprised to find blind man too frequently unsuccessful. One difficulty often presenting itself is the inability to secure a supply of willow just when most needed. The manufacturer on a large scale lays in a store at the season for harvesting the material, but the blind worker often finds it hard to provide a few dollars needful to execute current orders. So he loses the chance of employment and the little connection he has formed. I am of the opinion that, in the absence of bolder measures, it will be well for us to come to the rescue of such as I have just referred to, and to keep a sufficient stock in hand to meet their more urgent needs. In the report of the London Conference a blind man, Mr. Wm. Plater, of Birmingham, who conducts a very large business in willow, cane and the miscellaneous requirements of the basket and chair-making business, gave a very interesting account of his efforts and their happy results. He said :

"When I had learned the trade of basket making in the Birmingham "Institute I at once started in business on my own account. The thought "of going to work anywhere else, or anything different from that never "occurred to me. I felt that I had learned a trade and I would make the "best use I possibly could of it in the way of improving the general con-"ditions of my life. In the Birmingham district, where I live, we have a "great many nail and screw manufacturers, and nut and bolt people, who "use hampers. I laid myself out to supply one class of article, 'packing "hampers,' first. Then I knew that the firms I called on also used nail "bagging; they also used machinery, and, consequently, bought largely in "coal for the getting up of steam, etc. So I set to as soon as I learnt my "trade and started my business. I felt that I must have something to pay "me for the time spent in getting orders. I waited on a leading coal mer-"chant and got him to promise me a commission of two and a half per "cent. on all business I could bring to him. I also wrote to the different "nail bagging manufacturers in Scotland and Ireland, and secured an "agency with E. G. Duffin & Co., Belfast. The commission was settled, and "I agreed to represent them in the Midland Counties and I may say that at "the end of twelve months all their immense stock of nail bagging was "gone, and the prices had gone up thirty or forty per cent. I represented "them for three or four years, and I never made them a bad debt, and I am "now a customer to them instead of agent. With reference to basket "making, I strongly recommend any intelligent man who starts in business "after learning a trade to adopt also commission agencies with the manu-"facturers in that district; a tea agency might be added too. It was said "that basket making could not be recommended because prices were so "low. Prices as a rule are not low, and the demand increases. During the "year 1900 I disposed of 150,000 baskets of one kind or another, an average "turnout of 500 per working day, varying in price from 4 s. 6d. per dozen to "£10 10s. each. I turn out an immense quantity of baskets from £1 to £5 "each, and employ a good number of people in the making of them. If it is "possible for one energetic man, with only moderate ability, to find cus-"tomers for 150,000 baskets in one year, it is possible for any blind man "to get a living. I started without capital, and the first year I worked from "six in the morning till twelve at night. The following year I reduced my "hours of labour to ten at night, and as each year my business increased, "so I reduced by hours of labour. I put very few hours in now. Just to "show the result of what energy and perseverance will do I now go to busi-

"ness at ten, leave at one, leave home at half-past three and stop at six. "So that I put in five or five and a half hours a day, as a sort of compensa- "tion for the many hours of work previously, when young and strong."

Many another blind man would tell a similar story of success if on a smaller scale, showing "what energy and perseverance may do." But there is a freshness and hopefulness about Mr. Plater's narrative that makes it particularly attractive.

I had almost hoped the Conference in London would have suggested some new and feasible method for the employment of the blind, but, of handicrafts few, if any, beyond those we have already adopted, appear to be generally available. As one trade after another is recited in the report, the objections to it or the difficulties in carrying it on are often so formidable as to remove it from the region of the practicable. This remark, however, applies chiefly to the blind worker engaged in independent efforts to earn a livelihood. The workshop or factory often supplies what is wanting. Many of the suggested avocations sound very strangely to our ears "Chimney sweeping," is one of them. More practical, but certainly most objectionable, is the course pursued at a Colonial institution we have recently heard of, where pupils are trained for street musicians ! ! ! This, it is fair to say, was not one of the avocations mentioned at the London Conference.

Typewriting.

A large proportion of our pupils now employ the typewriter for their correspondence, and its use will gradually become more general.

Sewing, Knitting, Fancy Work and Cooking Classes.

These classes have been conducted with much success, and the results at the end of the session were highly creditable both to pupils and instructors. Bead work, hammock-making and string basket work are included in the list of employments for which our pupils are to be credited.

Health.

The health of the Institution as a whole has been good during the past year. Any cases of a serious nature will be mentioned in the Physician's report. One death has to be recorded -that of a little girl about ten years of age, who passed away suddenly soon after her admission as a pupil. We were not warned that such an event might be expected, but subsequently ascertained that it had been anticipated long before it occurred. The young pupil was a very attractive child, and had at once commanded the warm attachment of her companions and officers.

Discipline.

I do not recollect a session since my appointment in the year 1881 when less difficulty in maintaining discipline and order has been felt. We have had, with few exceptions, an intelligent, self-respecting body of young people, many of whom, I am led to believe, have exercised a very salutary influence over others.

The Circulating Library.

This addition to our means of helping the Blind has proved increasingly useful as time has passed since its establishment. The demand for books in the "Moon" type by blind adults has been comparatively small, although in many instances the facilities it has afforded that class for mental occupation have been gratefully recognized. But to our former pupils and trained readers in line type or cipher, the library has been of the greatest value. That it helps us to keep in touch with these is also a source of much satisfaction.

The Grounds, Farm, Etc.

The ornamental and recreative portion of the grounds becomes more and more beautiful as time passes, although little or nothing has been expended on it for several years. The farm, this year, has been more than usually productive, and results have been shown that would have been creditable to a much more prolific soil. Our orchards, also, to which, much to their gratification, our pupils have had free access, have yielded a heavy crop of apples, an item of no small importance in our domestic arrangements.

The Staff.

After ten years of faithful and loyal service as Supervisor of the male pupils, Instructor in physical culture, and, for the past year, teacher of literary classes, Mr. P. J. Padden has retired, in order to pursue his studies for a professional career. His departure is regretted by officers and pupils alike. All join in wishing him success in his future vocation. Mr. P. J. Roney has received the appointment to the vacancy thus created, and has entered actively upon his various duties. Mr. Roney is an experienced Public School teacher, holding a second-class professional certificate, and comes to us highly recommended by those who are best able to judge of his qualifications.

A Blind Traveller.

As an evidence of calm self-reliance, coupled with a deep sense of Providential care, and illustrating strikingly the facilities afforded for travel in these days, I may mention as an incident of the past session, the journey of one of our female pupils from Brantford to the Antipodes. The young lady, an orphan, had been offered a home by a brother in Sydney, Australia. By arrangements made with the Canadian Pacific Railway, the blind traveller was placed on a tourist car at Toronto, and, accompanied by a guide only as far as North Bay, travelled from that point alone to Vancouver, B.C., was there transferred to the "Moana" steamer, and, without hitch, misadventure or discomfort, arrived in less than a month from the time of leaving the Institution at her new home in Australia. Our old pupil's account of her trip, written in several pages of "point print" is very interesting, and not a little creditable in a literary sense. But I notice the case particularly in order that I may have the opportunity of publicly acknowledging the kindness and attention of every official of the C. P. R. with whom my young friend came in contact, both on railway and steamer, and, at the same time, of recognizing the care and consideration which our pupils invariably receive from all persons employed on our great railway lines, the Grand Trunk and the Canadian Pacific. Children, even of tender years, have travelled many hundreds of miles alone, but always well assured that a protector and helper has been near at hand. These good offices, it is only fair to state, are almost invariably supplemented by kindly acts on the part of fellow-passengers, and, I believe (while the Institution accepts no responsibility in such cases) that, in the charge of the railway hands, no one can travel more safely than a blind child.

Acknowledgments.

I cannot close without once more acknowledging the continued interest taken in the Institution by our fellow-citizens in Brantford, and the pleasant relations that exist between us. To the clergy, for their regular attendance on Sunday afternoons, my thanks are specially due.

I have the honour to be Sir,

Your obedient servant,

Brantford, October 15, 1902. A. H. DYMOND, Principal.

PHYSICIAN'S REPORT

October 10th, 1902.

T. F. Chamberlain, Esq., M.D., Inspector of Public Institutions:

Sir,—In presenting my Annual Report, as physician to the Ontario Institution for the Blind, I have pleasure in stating that the health in the building has been, on the whole, satisfactory. The pupils have been free from contagious diseases, and have been able, with few exceptions, to attend classes regularly.

On November 16th, 1901, a female pupil died suddenly of cerebral tumor of long standing. This, fortunately, was the only death during the year.

Early in December a male pupil of delicate frame developed pneumonia of a serious type, however, by careful nursing, he gradually regained his tone, and recovered completely.

The chief difficulty that I have among the pupils is the continued prevalence of colds and acute catarrhal affections, during the fall and winter months. In my opinion, this is caused by the obsolete system of heating used in the Institution. With modern systems of heating and ventilation, the general health would be improved and still more satisfactory work would be done. I have the honour to be, Sir,

Your obedient servant,

JOHN A. MARQUIS.

OCULIST'S REPORT.

To T. F. Chamberlain, Esq. M.D. Inspector of Public Institutions of Ontario:

Sir,—In reporting on this year's examination of the eyes of the pupils, it does not seem advisable to go into the details of the diseases, as there is practically no change in the pupils of former sessions, and there have not yet sufficient numbers of new pupils entered, in the two years which have elapsed since I dwelt at some length on the individual affections, to alter materially the former classification, so, from a statistical standpoint, a longer interval might well be allowed to intervene before doing so again.

There were fifteen new pupils to examine—seven male, eight female—all having very defective sight, and, hence, unquestionably eligible.

Concerning the sight of pupils examined before, in a few cases some improvement was evident, but in most of these it seemed to be due to more advanced age, and mental development, giving better attention, and more intelligent answers. In a couple of cases, however, where the defective sight had been from early childhood, there seemed to be a slight improvement in the condition of the eyes, with consequent actual increase in sight and, while not very great, this is of considerable advantage to the pupils both of whom, I must remark, are in excellent general physical condition, which, of course, has a direct bearing on the condition of their eyes.

The good general health of all the pupils who have been in the Institution for a length of time is remarkable. From year to year, I can notice children who came here with drooping heads stooping shoulders and hollow chests, developing into strong, erect youths, and the good general condition thus evidenced has a most beneficial effect in preventing further deterioration of the sight left to those so fortunate as to possess a helpful amount.

I have heard it suggested that the use of the Institution was abused by some pupils being educated here, who would do very well at a Public School. During my connection with the Institution I have found only three children, each blind in one eye from accident, the other having been endangered, but, now having normal sight, rendering them non eligible. These were at once reported, and retired. So that any such impression is unfounded.

During the year, a few acute eye and ear troubles arose requiring my attention, but, fortunately, none resulted seriously, all recovering their former condition.

Respectfully submitted,

Brantford, May 6th, 1902. B. C. BELL.

LITERARY EXAMINER'S REPORT.

T. F. Chamberlain, Esq., M.D., Inspector of Public Institutions for Ontario:

Sir,—I have the honor of submitting for your consideration the following Report of the Literary Examinations made by me under your instructions at the Ontario Institution for the Blind at Brantford for the academic year 1902. The examinations were held on the 21st, 22nd, 23rd, 26th and 27th days of May. At the request of Principal Dymond, I made a visit to the Institution on May 16th for the purpose of acquiring a definite conception of the work I had been appointed to do as examiner; for I felt sure that an examination of the blind must involve many departures from the methods employed with those possessed of sight.

At this preliminary visit, I was received by the Principal and Teachers with the greatest kindness, and every opportunity was afforded me of becoming acquainted with the organization and classification of the pupils, the curriculum of studies, and the peculiar methods of imparting, receiving and evincing knowledge necessarily resorted to in the education of the blind. I visited all the divisions, and saw over a hundred young persons seeking intellectual light.

But a visitor is deeply impressed with the wonderful liberality displayed by the Province in its provision for the education of these children on lines of culture as well as practical usefulness. The stately pile that crowns the heights of Brant Avenue, the ample grounds, about a hundred acres, planted with groves, the winding gravel roads and other approaches, the ornamental shrubberies and flower-beds, the sloping lawns and meadows, the extensive fields devoted to farming purposes, all present a scene of beauty and utility rivalling the claim of any College in Ontario. Nor are the internal arrangements less admirable. The whole building is heated by steam, its corridors and class-rooms, its various offices, dormitories, dining-rooms, kitchens, laundry-rooms, bakery, bathrooms, water and sewage systems, engine-rooms and workshops, all giving evidence of wise and abundant provision on the part of the Government, and the most thorough and efficient attention of those in immediate charge. Were it not that I know you are fully aware of what I am attempting to describe, I should go further; but, as a Canadian, I cannot refrain from expressing the delight and pride I felt during the six days I spent at this noble public institution.

But the work I was instructed to do was to examine the Literary Classes and I cannot do better than follow the lines of previous examiners

Kindergarten Class, 1902.

The marks obtained by each pupil in each subject are given in the accompanying mark sheets.

The following are the general results:

(*a*) Miss Gillin's Classes.

(1) Arithmetic—Class C. Twelve in class. Limit, multiplication table review, 20 x 20, money tables, definitions, elementary rules, weights and measures, problems on the same. The class, with one exception, knew the work well. The use of the 20 x 20 table is a great advantage to the blind. There is, of course, great difference in ability, some have high natural intelligence, a few are very dull. When a boy is both blind and slow the teacher has a very difficult task. This remark applies to all the classes, but such cases are not numerous. The necessity of doing all calculations mentally, limits the arithmetical work of the blind. I should think a mechanical calculating machine for the blind could be invented. The class obtained an average of 66 per cent.

(2) Grammar—Class A. Ten in class. Limit, history of language, orthography, analysis and parsing. The class did good work with two exceptions, and showed careful teaching. Average mark 72 per cent.

(3) English History. Thirteen in class. Limit, from Henry 2nd to Richard 2nd. This class displayed very accurate knowledge of the period, and contrasted its ideals clearly with those of our days. Average 82 per cent.

(4) Writing—Class D. Limit, small and capital letters, short words and a few sentences. Pupils mostly young. The writing is done by means of a pasteboard slate, with transverse grooves on it about half an inch wide, in which the paper is depressed and which guide the hand. Some pupils have attained great dexterity in the use of it. Marks averaged 46 per cent.

(5) English Literature—Seventeen in class. Limit the Elizabethan period, Latin roots, and Shakespeare's Richard the Third. This was a very superior class. The pupils would rank with some of the best High School forms. They had a thorough grasp of the derivation of English words from the Latin, knew the biography of the great dramatist thoroughly, had stored their memories with the finest passages of the play, comprehended the subtle analysis of human passion, were well versed in the history of the time, and evidently appreciated the beauty of the language. I must confess, I was astonished at the degree of mental culture displayed by this class. Average marks, 95 per cent.

(6) Geography—Eleven in class. Limit, United States and South America in detail, outline of Central America and West Indies, products forms of government, political relations. The memory work, with one exception, was very satisfactory. The pupils used the Sectional Maps with surprising facility, picking out by touch any state or island, and showing the location of cities, rivers, mountain chains, etc. These maps are made of thin slices of wood glued together, with the grain crossed, and are sawn into shapes, like children's puzzle cards, each country forming a block. Brass tacks of various sizes represent cities, etc., grooves representing rivers. The pupils easily distinguished any portion by feeling the outline, and really excelled most of us who have sight. These maps are mostly made in the institution, under the superintendence of Mr. Wickens. They are about four feet square, and lie on tables. The average in this class was 81 per cent.

(7) Ancient History—Seventeen in class. Limit, sketches of the history of Egypt, Chaldaea, Assyria, Babylon, Persia; also of the leading

writers of Greece and Rome. The class had been carefully taught and knew much of ancient times.

(8) Canadian History -The same class. Limit, from 1763 to 1812, present form of government. With one exception the pupils knew their Canadian history well, and fully appreciated its bearing on our present liberties, privileges, and duties as citizens. Average 82 per cent.

(9) Bible Class—Class A.—Girls; twenty-three in class. Limit, Old Testament History, Numbers to Ruth, 1st Samuel, Wanderings of Israelites, Conquests, The Judges, etc. As a Public School Inspector, this was a new departure for me. The teacher asked the questions, and covered the whole period. As no one failed to reply promptly and accurately I cheerfully gave the class 100 per cent., and have no doubt they deserved it.

Miss Walsh's Classes.

(1) Arithmetic—Class A.—Fourteen in class. Limit, measurements, percentage, gain and loss, insurance, taxes, partnership, general problems in High School arithmetic. With two exceptions the class solved all the problems given, and gave clear, logical solutions. This class would compare favorably with the lower forms of a High School. Average marks, 80 per cent.

(2) Reading and Spelling—Class B.—Limit, reading from the 1st, 2nd, 3rd, 4th, 5th and 6th Books. The books are printed in embossed type or raised letters. The pupils read with great ease, the rate of utterance not being any slower than a careful reader should employ. The utterance was very distinct, the inflection and emphasis in most cases decidedly good. The teaching had evidently been of the most thorough kind. I tested the pupils in reading disconnected words and in reading sentences backwards. But in nearly every case word-recognition was correct and prompt. The average mark was 89 per cent. This included the spelling tests.

(3) Writing—Class C.—Thirteen in class. Limit, words, capitals, sentences. Good work, careful teaching. Average 58 per cent.

(4) Geography—Class D.—Limit, Ontario, counties, lakes, rivers, railways, products, definitions, etc. This class comprised several sections of different degrees of advancement, but they all did themselves credit, the seniors taking 81 per cent. and the juniors 65 per cent.

(5) Grammar—Class B.—Thirteen in class. Limit, definitions, inflections of nouns, verbs, parsing. All but two did very good work. Average, 82 per cent.

(6) Natural History—Seventeen in class. This was a very interesting class. The pupils described the chief points of interest in the specimens before them, the kangaroo, weasel, mole, monkey, seal, eagle, owl, etc. They also gave full accounts of cotton, silk, and other materials, and their manfacture, exhibiting the specimens. Both Miss Walsh and her pupils take great pleasure in this study.

(7) Bible Class—Fourteen in class. Limit, Gospel of St. Luke, History of the Passion, the leading miracles, parables, first chapter memorized. The pupils had been very carefully instructed in the course prescribed, and could narrate the miracles and parables and repeat the Canticles, the Beatitudes, the Lord's Prayer, and other portions of the Gospel. These pupils are Roman Catholics, and use the Douay version of the Bible Average marks, 95 per cent.

Mr. Wickens' Classes.

(1) Arithmetic—Class B. Limit, fractions, problems. Eleven in class. A very intelligent class. Average marks, 78 per cent.

(2) Geography—Sixteen in class. Limit, detailed study of Europe physical features, peoples, products, etc. The work was exceedingly well done, especially the map work, in which many of the pupils were remarkably expert, showing a minute knowledge of the Continent of Europe. Average, 74 per cent.

(3) Reading—Class A. Eight in class. Limit, Enoch Arden, in Point Print, and spelling. This is a new kind of print, not generally known to the public, but of vast use to the Blind. It is done by the pupil puncturing paper with a pointed steel pencil. The paper, of a special kind, is laid on a sort of frame called a slate, and the hand is guided by a transverse frame, containing three parallel rows of square holes about an eighth of an inch wide. This enables the writer to punch letters, or, rather, combinations of dots, that, as in telegraphy, represent letters, with great rapidity. They write from right to left, and when the paper is turned over, the trained fingers read the words with ease, from left to right. Mr. Wickens is a master of this art, and has a fine class. Average, 85 per cent.

(4) Typewriting. Here Mr. Wickens has a most surprising class. Nineteen of the blind are learning typewriting, in addition to a large number who had already learned it. A number of machines of different make, but with standard keyboard, are employed. The skill of some of the young men and girls is remarkable. It adds greatly to their interest in study, and they are delighted to be able to write English in a form that can be read as easily as print by others, though not by themselves. This last consideration is a source of discouragement, as the inability to read and correct their own work lessens their opportunity for profitable employment. It was impossible to average this class in marks, although several won 100 per cent.

(5) Bible Class—Boys, A. Twenty present. Limit, numbers to Ruth inclusive. The class showed accurate remembrance of their lessons, and quoted passages with ease. Average marks, 74 per cent.

Mr. Padden's Classes.

(1) Arithmetic—Class D. Twenty-five in class. Limit, tables, fundamental rules, problems. Two divisions form this class. The seniors took 79 per cent., the juniors 67 per cent. Mr. Padden teaches with much energy and success.

(2) Grammar—Class C. Limit, parts of speech, analysis and parsing. Twenty-one in class. Work well done. Average, 80 per cent.

(3) Geography—Class C. Sixteen in class. Limit, definitions, Dominion of Canada, Ontario, political conditions, etc. With one exception, all did well. Average, 73 per cent.

(4) Reading—Class C. Twenty in class. The reading was from the embossed print in First to Fourth Books. The development of the sense of touch, as evinced in reading these books was wonderful. The reading was as rapid as reading should be, and with few errors. Word recognition was very satisfactory. Average marks, 91 per cent.

(5) Writing—Class B. Fourteen in class. Limit, capitals, sentences, figures. Good work done by all, except two. Average, 68 per cent.

(6) Gymnastics. In the Gymnasium, I was delighted beyond measure. The hall is a large and thoroughly equipped building, and, under Mr. Padden's direction, a class of about thirty girls went through their marching evolutions and their Indian club exercises. The precision, grace and beauty of this work I shall never forget. This was followed by a number of

athletic feats of agility and strength on the part of a large class of boys, their performance also reflecting great credit on Mr. Padden.

It was also my privilege to examine the Bible Classes of Miss Moore, Miss Haycock and Miss Messmore, all averaging about 70 per cent., and all carefully instructed.

Miss Haycock also has a class in Reading, in which are a number (12) of very interesting little children, who, in the main, did very well.

I also visited the Kindergarten, conducted by Miss Messmore. It is surprising how much Kindergarten work can be done by the blind. The room was adorned with the beautiful products of the children's skill.

Mr. Truss, the veteran Master of the Trades at the Institute, showed me his boys at work at basket-making, and chair-seating.

Not a few of the students have gained a good start in life by the skill acquired in this Department. Still, I was told machinery has, to a large extent, shut out even the blind from this resource, and less of this work is taken than formerly, with a view to earning a livelihood.

On the last day of my visit, I attended the opening exercises in the College Hall, where the whole body of pupils and teachers assemble a little after eight every morning for the opening religious exercises. It is a very beautiful and spacious room, or, rather, Hall, with a wide dais, at the back of which is a magnificent organ. The solemn bearing of the children, their excellent discipline, the elegance of the service, conducted by the Principal, and the thrilling melody of the chants and hymns, under the direction of the organist, were very impressive. Music and devotion are very important elements in the lives of those young people.

"An infant crying in the night.
An infant crying for the light.
And with no language but a cry."

In conclusion, I heartily thank the Principal and the teachers and other officers for their kindness to me during my visit.

Respectfully submitted,

Your humble servant,

J. J. WADSWORTH,
P. S. Inspector, Co. Norfolk.

Simcoe, June 9th, 1902.

REPORT ON MUSICAL INSTRUCTION.

T. F. Chamberlain, Esq., M.D., Inspector of Public Institutions:

Sir, -The Musical Department of the Ontario Institution for the Blind, Brantford, was examined by me on June 3rd and 4th, 1902. The number of pupils studying music is 53, and each student was heard separately. The examination was conducted under the following heads: Theory of music, (including Harmony), Counterpoint and Musical History, Piano, Organ, Senior and Junior Choral Classes, and Congregational Singing. The class in Piano Tuning was also examined.

Two papers were set for the Theory classes, with the result that all of the pupils in the Senior class obtained more than 75 per cent. of the marks, and, of the pupils in the Junior class, two obtained 75 per cent. and over; two 66 per cent. and over, and only one under 50 per cent. of the marks obtainable. The class in Musical History was given an oral examination

on their year's work, and the questions were fairly well answered by most of the members of the class. From the above statement, it will be seen that the Theory classes are in a satisfactory condition.

In Piano Playing, the work of the pupils was, on the whole, very good, showing careful work and good methods on the part of the teachers. The classes are divided into five grades, with sub-divisions. The three pupils in the highest grade play excellently; and through all the grades there were found several talented students, whose progress was being carefully looked after. The Junior pupils are being given the necessary attention with regard to their touch and ear training—a most important matter for young players.

The playing of the pupils in the Organ class is generally good. One of them has a good command of the organ key-board, and two of the junior pupils give promise of becoming good players.

The singing of the Choral Classes was quite good, and, in the Senior class, the parts are better balanced than they were last year. The freshness and brightness of the girls' voices was noticeable. The Junior Choral Class answered the rudiments questions very well and sang two or three two-part songs with much spirit.

The Congregational Singing of the students at the morning devotional exercises was hearty and bright.

The work of the Class in Piano Tuning was examined, and found most satisfactory. This important department of the institution is being well cared for by its capable instructor, Mr. Hayter.

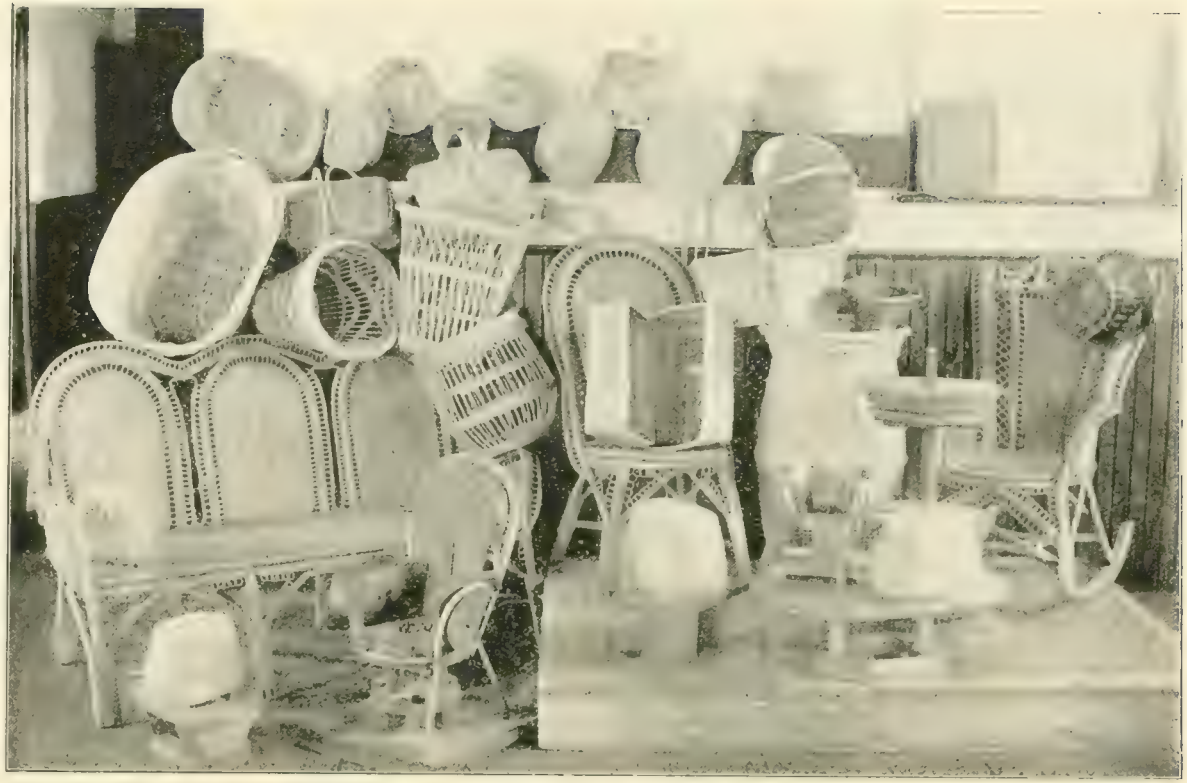
From the foregoing, it would, perhaps, appear that there might be a desire to flatter the work of the Musical Department of the Institution for the Blind. Such is not the case. An inspection only shows the careful attention which the Music Classes are receiving at the hands of their instructors. It will be readily understood that in an institution of this kind, the standard of excellence will vary from year to year, according to the amount of individual talent possessed by the pupils. While the number of talented pupils may or may not be as large as that of previous years, there is no doubt but that these pupils are being properly trained; and the other pupils, less talented, are being carefully taught. One thing which is very noticeable—and, perhaps, more so than in the case of sighted people—is the very evident pleasure and delight which the study of music affords to the blind students.

I have the honor to be, Sir,

Your obedient servant,

W. E. FAIRCLOUGH.

Toronto, July 26th, 1902.



Willow Work.

ONTARIO INSTITUTION FOR THE BLIND.

STATISTICS FOR THE YEAR ENDING 30TH SEPTEMBER, 1902.

I. Attendance.

	Male.	Female	Total
Attendance for portion of year ending September 30, 1872	20	14	34
" for year ending 30th September, 1873	44	24	68
" " " 1874	66	46	112
" " " 1875	89	50	139
" " " 1876	84	64	148
" " " 1877	76	72	148
" " " 1878	91	84	175
" " " 1879	100	100	200
" " " 1880	5	93	198
" " " 1881	103	98	201
" " " 1882	94	73	167
" " " 1883	88	72	160
" " " 1884	71	69	140
" " " 1885	86	74	160
" " " 1886	93	71	164
" " " 1887	93	62	155
" " " 1888	94	62	156
" " " 1889	99	58	167
" " " 1890	95	69	164
" " " 1891	91	67	158
" " " 1892	85	70	155
" " " 1893	90	64	154
" " " 1894	84	66	150
" " " 1895	82	68	150
" " " 1896	72	69	141
" " " 1897	76	73	149
" " " 1898	74	73	147
" " " 1899	77	71	148
" " " 1900	77	67	144
" " " 1901	72	66	138
" " " 1902	68	70	138

II. Age of pupils.

	No.		No.
Five years	2	Seventeen years	10
Six "	2	Eighteen "	7
Seven "	4	Nineteen "	13
Eight "	1	Twenty "	8
Nine "	3	Twenty-one "	9
Ten "	8	Twenty-two "	1
Eleven "	7	Twenty-three "	1
Twelve "	9	Twenty-four "	2
Thirteen "	6	Twenty-five "	4
Fourteen "	8	Over twenty-five years	14
Fifteen "	11		
Sixteen "	8	Total	138

III. Nationality of parents.

——	No.	——	No.
American	4	German	7
Canadian	72	Scotch	18
English	24		
Irish	12	Total	138
Italian	1		

IV. Denomination of parents.

——	No.	——	No.
Brethren	1	Evangelical Association	1
Baptist	1	Presbyterian	32
Disciples	2	Roman Catholic	22
Episcopalian	39	Salvationist	3
Methodist	34		
		Total	138

V. Occupation of parents.

——	No.	——	No.
Accountant	1	Huckster	1
Agents	1	Laborers	25
Bank Manager	1	Marble-workers	1
Bricklayer	1	Machinist	2
Blacksmiths	1	Merchants	6
Butchers	1	Mill-wright	1
Carpenters	5	Physicians	1
Cheesemaker	1	Painters	4
Clergyman	1	Printer	1
Cooper	1	Plumber	1
Cook	1	Policeman	1
Carriage-builder	1	Railway manager	1
Conductor	1	Shipper	1
Cabinet-maker	1	Soda Water M'f'r	1
Drover	1	Stone masons	1
Explorer	1	Railway employees	5
Farmers	42	Repairer	1
Fireman	1	Tailors	1
Fisherman	1	Teacher	1
Foreman	1	Teamsters	5
Gardeners	3	Tinsmith	1
Government officers	4	Unknown	4
Hostler	1		
		Total	138

VI. Cities and counties from which pupils were received during the official year ending 30th September, 1902.

County or city.	Male.	Female.	Total.	County or city.	Male.	Female.	Total.
District of Algoma	1	3	4	District of Nipissing	2	1	3
City of Belleville	...	..	....	County of Norfolk	2	3	5
County of Brant	..	1	1	" Northumberland	1	2	3
City of Brantford	3	1	4	" Ontario	1	3	4
County of Bruce	1	2	3	City of Ottawa	2	1	3
" Carleton	...	.	....	County of Oxford	2	4	6
" Dufferin	2	....	2	" Peel	1	....	1
" Dundas	..	....	.	" Perth	1	1	2
" Durham	...	1	1	" Peterborough	....	....	....
" Elgin	3	2	5	" Prince Edward	1	...	1
" Essex	1	7	8	" Prescott	2	.	2
" Frontenac	...	.	...	" Renfrew	2	2	4
" Glengarry	1	1	2	" Russell	1	....	1
" Grenville	...	1	1	City of St. Catharines	....	....	....
" Grey	3	2	5	" St. Thomas	.	1	1
City of Guelph	2	..	2	" Stratford	1	....	1
County of Haldimand	...	....	..	County of Simcoe	2	1	3
" Haliburton	..	.	....	" Stormont	1	....	1
" Halton	..	2	2	City of Toronto	8	10	18
City of Hamilton	1	3	4	County of Victoria	2	....	2
County of Hastings	....	....	.	" Waterloo	1	....	1
" Huron	2	1	3	" Welland	..	1	1
City of Kingston	2	....	2	" Wellington	2	...	2
County of Kent	2	1	3	" Wentworth	..	1	1
" Lambton	....	2	2	" York	....	2	2
" Leeds	1	1	2	*Quebec	2	1	3
" Lanark	..	1	1	North-West Territory	1	....	1
" Lennox	.	..		Manitoba	....	....	....
" Lincoln	....	....		*British Columbia	1	....	1
City of London	1	....	1				
County of Middlesex	2	4	6				
District of Muskoka	1	....	1	Total	77	67	144

* On payment

VII.—Cities and counties from which pupils were received from the opening of the Institution till 30th September, 1902.

County or city.	Male.	Female.	Total.	County or city.	Male.	Female.	Total.
District of Algoma	4	4	8	County of Haldimand	4	5	9
City of Belleville	3	1	4	" Halton	6	3	9
County of Brant	7	7	14	City of Hamilton	13	17	30
City of Brantford	15	10	25	County of Hastings	5	4	9
County of Bruce	8	11	19	" Huron	10	10	20
" Carleton	2	1	3	City of Kingston	7	4	11
" Dufferin	2	1	3	County of Kent	9	5	14
" Dundas	3	3	6	" Lambton	13	5	18
" Durham	3	4	7	" Leeds	12	4	16
" Elgin	6	6	12	" Lanark	2	4	6
" Essex	9	20	29	" Lennox	4	1	5
" Frontenac	5	2	7	" Lincoln	3	3	6
" Glengarry	8	1	9	City of London	10	9	19
" Grenville	2	2	4	District of Nipissing	3	3	6
" Grey	9	12	21	County of Middlesex	9	12	21
City of Guelph	4	2	6	District of Muskoka	3	...	3

VII.—Cities and counties from which pupils were received from the opening of the Institution till 30th September, 1902.—*Continued.*

County or city.	Male.	Female.	Total.	County or city.	Male.	Female.	Total.
County of Norfolk	9	9	18	County of Stormont	5		5
" Northumberland	3	9	12	City of Toronto	51	34	85
" Ontario	7	9	16	County of Victoria	8	2	10
City of Ottawa	16	2	18	" Waterloo	10	4	14
County of Oxford	6	9	15	" Welland	6	4	10
" Peel	2	1	3	" Wellington	10	8	18
" Perth	3	8	11	" Wentworth	8	8	16
" Peterborough	11	3	14	" York	17	16	33
" Prince Edward	6	2	8	*Province of Quebec	4	1	5
" Prescott	3	..	3	*North-West Territory	1	1	2
" Renfrew	8	5	13	*United States	1	.	1
" Russell	3	1	4	*British Columbia	1	..	1
City of St. Catharines	2	1	3	*Manitoba	1	..	1
" St. Thomas	3	2	5				
" Stratford	3	1	4				
County of Simcoe	11	10	21	Total	422	326	748

* On payment.

VIII. Cities and counties from which pupils were received who were in residence on 30th September, 1902.

County or city.	Male.	Female.	Total.	County or city.	Male.	Female.	Total.
District of Algoma	1	2	3	District of Muskoka	1	....	1
City of Belleville	...	..	....	" Nipissing	2	1	3
County of Brant	...		....	County of Norfolk	1	2	3
City of Brantford	3	3	6	" Northumberland	1	2	3
County of Bruce	1	2	3	" Ontario	1	...	1
" Carleton	.	....	.	City of Ottawa	2	1	3
" Dufferin	1	..	1	County of Oxford	....	1	1
" Dundas	....	...	.	" Peel	1	...	1
" Durham	....	..	.	" Perth	....	....	....
" Elgin	2	...	2	" Peterborough	....	....	....
" Essex	....	6	6	" Prince Edward	1	...	1
" Frontenac	....	..	...	" Prescott	2	..	2
" Glengarry	1	....	1	" Renfrew	1	2	3
" Grenville	....	1	1	" Russell	...	..	.
" Grey	2	2	4	City of St. Catharines	..	.	
City of Guelph	2	....	2	" St. Thomas	...	1	1
County of Haldimand	....	..	....	" Stratford	1	1	2
" Haliburton	....	....	....	County of Simcoe	2	...	2
" Halton	....	....	..	" Stormont	1	..	1
City of Hamilton	2	3	5	City of Toronto	6	9	15
County of Hastings	....	.	....	County of Victoria	1	...	1
" Huron	1	1	2	" Waterloo	2	....	2
City of Kingston	2	...	2	" Welland	...	1	1
County of Kent	2	1	3	" Wellington	..	..	....
" Lambton	...	2	2	" Wentworth	....	1	1
" Leeds	1	....	1	" York	..	1	1
" Lanark	....	1	1	British Columbia	1	....	1
" Lennox	....	....	....	Quebec	2	1	3
" Lincoln	..	....	..	Manitoba	..	....	....
City of London	....		.				
City of Woodstock	2	2	4				
County of Middlesex	1	4	5	Total	52	55	107

Maintenance expenditure for the year ending 30th September, 1902; compared with preceding year.

Item.	Service.	30th September, 1901. Average No. of pupils, 118. Expenditure 1901.	Yearly cost per pupil, average 118.	Weekly cost per pupil, average 118.	30th September, 1902. Average No. of pupils, 111. Expenditure 1902.	Yearly cost per pupil, average 111.	Weekly cost per pupil, average 111.
		$ c.	$ c.	c. m.	c.	$ c.	c. m.
1	Medicine and medical comforts	167 51	1 42	2 7	82 53	74	1 4
2	Butcher's meat, fish and fowl	1,769 75	14 99	28 8	1,612 91	14 53	2 8
3	Flour, bread and biscuits	491 53	4 06	8 0	520 98	4 69	9 0
4	Butter and lard	1,028 09	8 71	16 7	985 73	8 88	1 7
5	General groceries	1,452 27	12 30	23 7	1,391 20	12 53	24 1
6	Fruit and vegetables	231 98	1 96	3 7	291 27	2 62	5 0
7	Bedding, clothing and shoes	513 05	4 34	8 3	449 93	4 05	7 8
8	Fuel—wood, coal and gas	3,437 09	28 12	56 0	*136 40	1 22	2 3
9	Light electric and gas	910 63	7 71	14 8	727 99	6 56	12 6
10	Laundry, soap and cleaning	306 69	2 59	4 9	316 86	2 85	5 4
11	Furniture and furnishings	352 43	2 98	5 7	504 54	4 54	8 7
12	Farm and garden—feed and fodder	624 70	5 29	10 1	700 56	6 31	12 1
13	Repairs and alterations	661 42	5 60	10 7	936 85	8 44	16 2
14	Advertising, printing, stationery and postage	604 94	5 12	9 8	643 39	5 79	11 1
15	Books, apparatus and appliances	619 50	5 24	10 0	1,158 45	10 43	20 0
16	Miscellaneous—unenumerated	1,126 84	9 54	18 3	1,204 58	10 85	20 8
17	Pupils sittings at churches	224 00	1 94	3 3	200 00	1 80	3 4
18	Rent of water hydrants	160 00	1 35	2 6	160 00	1 44	2 7
19	Extra water supply	113 20	95	1 8	123 08	1 10	2 0
20	Salaries and wages	17,621 68	149 33	287 1	17,080 78	153 88	295 9
		32,417 30	274 72	528 3	29,227 98	263 31	506 4

* No coal as yet delivered.

Certified correct,

W. N. HOSSIE,

Bursar.

30th September, 1902.

THIRTY-SECOND ANNUAL REPORT

UPON THE

ONTARIO INSTITUTION

FOR THE

EDUCATION OF THE DEAF AND DUMB

BELLEVILLE

BEING FOR THE YEAR ENDING 30TH SEPTEMBER

1902

PRINTED BY ORDER OF

THE LEGISLATIVE ASSEMBLY OF ONTARIO.

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1903

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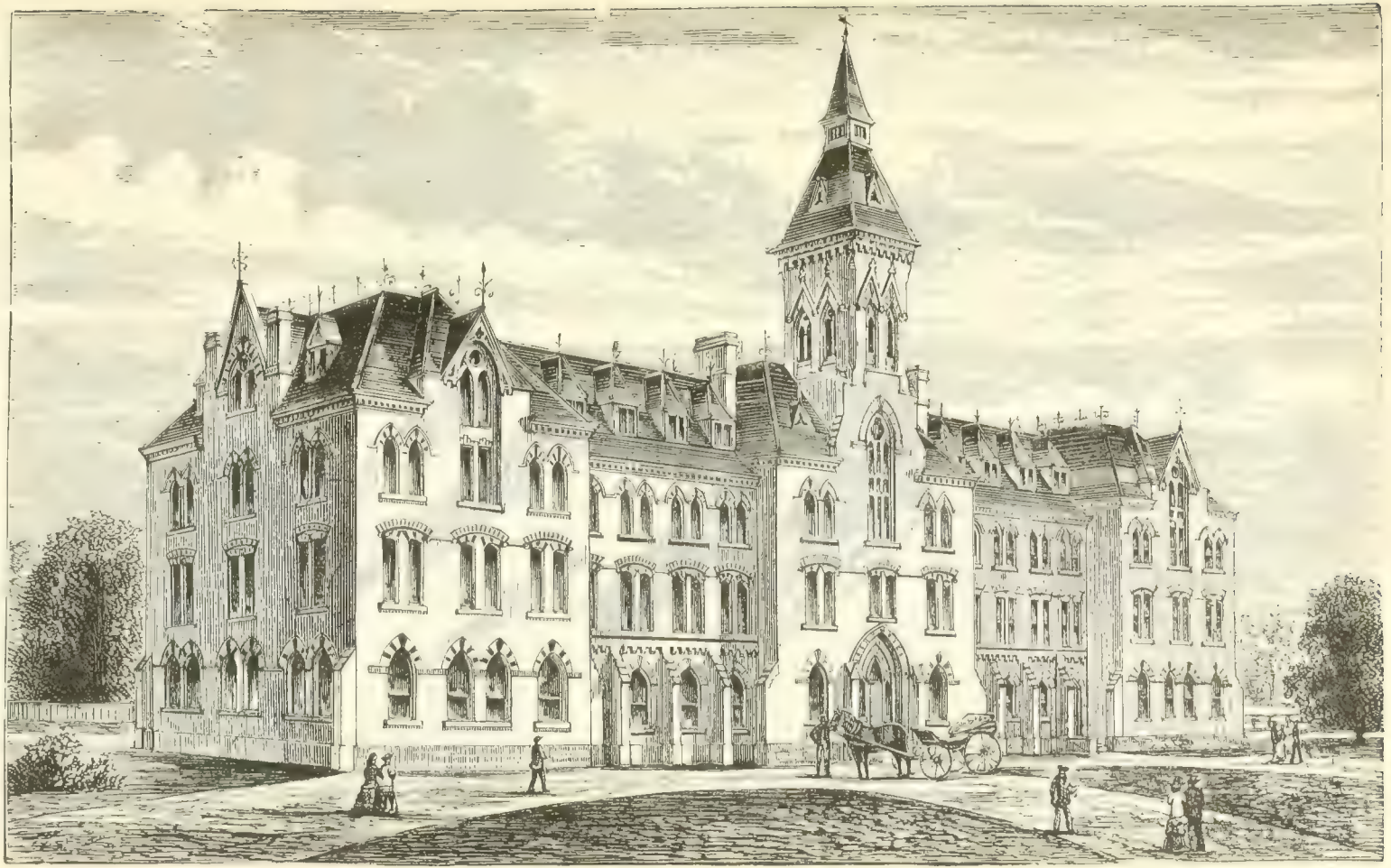

ONTARIO INSTITUTION FOR THE DEAF AND DUMB, BELLEVILLE.

Parliament Buildings,

Toronto, November, 1902.

Sir,—I beg to transmit the Thirty-Second Annual Report upon the Institution for the Education of the Deaf and Dumb, at Belleville, for the year ending 30th September, 1902.

I have the honor to be, Sir,

Your obedient servant,

T. F. CHAMBERLAIN,
Inspector.

The Honorable J. R. Stratton, M.P.P.,
Provincial Secretary.

Parliament Buildings,

Toronto, November, 1902.

To the Honourable Sir Oliver Mowat, Knight Commander of the Order of St. Michael and St. George, Member of the King's Privy Council for Canada, and Lieutenant-Governor of the Province of Ontario:

May it Please Your Honor:

I have the honor to submit herewith the Thirtieth Annual Report upon the Institution for the Education of the Deaf and Dumb, at Belleville, for the year ending 30th September, 1902.

J. R. STRATTON,
Provincial Secreary.

THE INSTITUTION

FOR THE

EDUCATION OF THE DEAF AND DUMB.

In submitting the Thirty-Second Annual Report, I am pleased to be able to state that the past year has been one of progress. The number of pupils for the year 1901-2 was 253, ranging from 7 years to 20 years of age. Every county and district in the Province has furnished its quota of pupils to this Institution. The present session opened with 250 pupils, 33 of whom had not attended the school before. The pupils, as a whole, are diligent, attentive to their studies, and well behaved; no better class of pupils can be found in any of our Public Schools. The Inspector of Public Schools for the County of Peterborough, who made the annual examination of the pupils, highly complimented them on their attainments, and the teachers and officers of the Institution on the thoroughness of the work done by them during the year.

While every care has been taken by the teachers to advance the pupils in their literary and industrial work, their moral training has not been neglected. Every day the school is opened and closed with religious exercises, and on the Sabbath the pupils attend the various churches in the city, as well as services in the chapel of the institution. The industrial work taught includes carpenter work, shoemaking, baking, printing, barbering, and the Sloyd system of manual labour, drawing, making models, etc.

In addition to their literary work, the girls are instructed in sewing, knitting, fancy work, and domestic science, the latter branch having been established this year. The pupils who have graduated from this school in past years, are, with scarcely an exception, making a good living for themselves and their families.

The health of the pupils has been very good during the year, as will be seen by Dr. Goldsmith's report. The report of Mr. Mathison, the Superintendent, gives very interesting statistics, and other information in connection with the institution, and is well worth a careful perusal. During my official visits, I have had full opportunity to see the pupils at their work in the class-rooms, and also in the chapel, the dining-room, and during their recreation, and have been greatly pleased with their deportment, their attention to their studies, and the excellent feeling existing between them and their teachers, as well as the strong attachment manifested toward the Superintendent.

The farm work has been well done during the year, and the yield of crops has been greater than in past years. The farming implements have been properly cared for, and the live stock is in good condition. All the outbuildings have been painted during the summer vacation, and the usual repairs made.

The Superintendent's office contains the files and all papers connected with the history of the pupils, and other matters pertaining to the institution. The Bursar's office and store are always found in good order. The expenditure during the past year was $42,962.76, making the average cost per pupil $169.81.

The requirements for the coming year will not materially differ from last year.

The report of Mr. Michael O'Brien, Inspector of Public Schools for the County of Peterborough, who made the annual examination of the pupils, shows the standing of every class, and is very flattering to the pupils, as well as to the teachers. There is nothing special to note in connection with Dr. Goldsmith's report as to the health of the pupils and officers of the institution during the year.

As to the request made by some of the ex-pupils in the resolution passed at the Convention of Deaf Mutes held in London, and the recommendation of the Superintendent, that this Institution should be placed under the management of the Minister of Education, instead of the Provincial Secretary, I have to say that the reasons given for making the change do not now exist, nor have they for some years. There is nothing in the Annual Report to suggest or indicate that either this Institution or the Institution for the Blind, at Brantford, is in any way classed with asylums, homes, or charitable institutions, and they are managed by the Provincial Secreary as a matter of convenience. Both of these Institutions are wholly maintained by the Province, which is not the case with any of the common schools under the supervision of the Education Department. The Institutions for the Deaf and Dumb, and the Blind, have separate annual reports, giving full details of their management; their classes are examined yearly by County School Inspectors in the same way, and on the same subjects, as hearing and seeing children. It will be noticed that those who advocate the change do not suggest any change in the duties now performed by the Superintendent, officers or teachers, or that the coprse of study pursued or method of imparting instruction is not the best, in the interest of the pupils, that could be devised. They do not ask for, and, I believe, they do not desire, any change in these matters, or in respect to the industrial training given to the pupils, and which is of very great importance to them in after life; this latter the children attending the common schools do not receive. Do the pupils, ex-pupils, and all who have been, and are, connected with this Institution desire to do away with the present Annual Report, which contains so much of interest, not only to themselves, but to the public at large, and which is distributed amongst similar institutions all over the continent, and accept instead a bare mention with the other schools of the Province in the Annual Report upon schools issued by the Minister of Education? This Institution has been thirty two years in existence, and ranks as one of the best schools on the continent as to management, method of teaching, and the subjects taught. Had you not better think this matter over with a little more care before advocating a change which you may regret.

I thank the Superintendent, teachers, officers and employees for the kindness and courtesy shown me when making my inspection of the institution.

T. F. CHAMBERLAIN,
Inspector.

REPORT OF THE SUPERINTENDENT.

Belleville, Ont., 30th September, 1902.

Dr. T. F. Chamberlain, Inspector of Public Institutions, Toronto, Ont.:

Sir,—It again becomes a pleasurable duty to present the Annual Report of this Institution—the thirty-second—for the year ending the 30th September, 1902.

When our school closed in June last, and the pupils were sent to their homes for the vacation, there was a general feeling amongst teachers and officers that good, conscientious work had been done during the term, and that the session had been a successful, and, in many respects, a pleasant one. The very full paper of the Literary Examiner, Mr. M. O'Brien, which forms an appendix of this Report, gives the work of the institution in a favorable light, and is all the more valuable from the fact that a little son of his is a pupil in the school. His parental love would lead him to enquire thoroughly into the system and methods of instruction, and thereby judge of the results likely to be obtained. In his address to the pupils before leaving, Mr. O'Brien, among many other good things, made use of the following words: "I don't care how much boys and girls may know, it does "not matter how much knowledge and literary attainments they may have, "if they have not learned to be useful they are not much good." This is a text from which might be preached a long homily, for those words express what has come to be regarded as the central idea in modern educational methods. Time was when mere linguistic and literary attainments were regarded as the great desideratum—the chief, if not the only, end of instruction—and technical training was looked upon as degrading and repugnant to right conceptions of true education. But the world moves, and in this practical age the main object of education is to teach boys and girls to be useful, to give them such instruction and training as will best enable them to earn a livelihood, and to wish for and attain to the greatest possible success in life. So far as opportunities permit, we have endeavored at this institution to keep in view and carry into effect the two-fold purpose of education, viz.: thorough mental training and as great literary acquirements as is possible, combining the useful and the practical. Many of our boys, in addition to the ordinary school work, are taught various trades,—printing, shoemaking, carpentering, baking and barbering; the girls are made conversant with tailoring, dressmaking, plain and fancy sewing, and with every kind of housework. Each boy and girl, if physically able, is required to take his or her time in various kinds of helpful work on the farm or garden, or in the kitchen, dining-room and laundry. In every department of our work the development of character, the instilling into the mind of every pupil the principles of probity, industry and perseverance, is always kept prominently in view, as an all-important feature. A couple of years ago we opened a Manual Training Shop,—one of the best equipped in the Province—which has proved a great success. It is in charge of a competent instructor, trained in the best manual schools of Great Britain and Sweden, and we take no little pride in the reflection that we are the pioneers of this work in Ontario. As soon as our plans relative to manual training had materialized for our boys, our attention was next directed to Domestic Science for our girls. Our expectations have been realized, and our Domestic Science Department is now in full operation, under the management of Miss H. H. Gowsell, a graduate of the Normal School of Domestic Science at Hamilton, from whose competent and skilful guidance we anticipate a very gratifying measure of success.

Biennial Convention of Graduates.

The eighth Biennial Convention of the Ontario Deaf Mutes' Convention was held on June 14th to 17th in the rooms of the Young Men's Christian Association Building, at London, and it was a most pleasant, interesting and successful convention in every respect. It was the first time the meeting had ever been held so far east or west from the centre of the Province, and the selection of London was regarded as a hazardous experiment, but the attendance was quite as large as usual, despite the long distances many of the members had to travel. The members of the association are not selected delegates, whose expenses are paid by the bodies they represent, but each member present must attend on his or her own initiative, and each one must pay his or her own way. The fact that some two hundred deaf ladies and gentlemen—about one out of every six deaf persons in Ontario —were able to go from all parts of the Province, and pay their own way, is strong evidence of the independence and prosperity which characterize them as a class. The proceedings, as usual, were devoted to discussions of various matters of interest to themselves, especial emphasis being given to the very great importance of the deaf continuing after they left school, by systematic courses of reading, literary societies and other methods, the educational processes there begun. Preliminary steps were also taken, which it is hoped will lead to the appointment of an itinerant clergyman to travel from place to place, and hold religious services at stated regular periods. The Convention was distinguished from previous ones by the many courtesies extended and the warm sympathy manifested towards the deaf by the citizens. His Worship, Mayor Beck, greeted the Association with hearty words of welcome at the opening session, and invited all the members and their friends to spend an afternoon at Springbank Farm as his guests. At every session, and especially every evening, large numbers of hearing persons were present, and manifested a keen interest in the proceedings, and all of them expressed their surprise and delight at seeing such an intelligent, wide-awake, happy and prosperous-looking body of people, who were able to conduct their proceedings with as much decorum and to carry on their discussions as freely, easily and as intelligently as could hearing people. In recognition of this general courtesy and interest, the last evening of the Convention was devoted to a public exemplification of the Sign Language and other methods of expression employed by the deaf. The hall was well filled by hearing people, who witnessed with unwearied delight an interesting programme of hymns, pantomimes, etc., all given in the sign language, which was vocally interpreted to the audience. Several churches also manifested their interest by inviting some of the deaf to visit their Sunday schools and other services and render hymns in the graceful sign language. These exemplifications were all gladly given, not as mere curious exhibitions, but from a sincere desire on the part of the Association to give hearing people a truer conception of the capabilities of the deaf, and to remove some of the erroneous impressions that prevail. All who come into intimate association with the deaf learn to entertain for them sentiments of the warmest respect and admiration, but the great mass of the people are ignorant of their true character, and mentally class them with other defectives. The intelligent deaf welcome every opportunity to dissipate this false impression and let people see and judge for themselves that they are in every good quality of mind and heart in no respect inferior to hearing people.

Not an Asylum or Place of Detention, but a School for the Deaf and Dumb.

During the meetings of the Legislature last session, when the Estimates for this Institution were under discussion, the Honorable J. R. Stratton, Provincial Secretary, remarked that the placing of the Institution under the Department of Education was a matter that might fairly be considered. The more intelligent deaf and dumb persons in the Province have at various times desired that the Institution should be put under the Department of Education; this has been in their minds for a number of years past, and this view has been urged upon me from time to time, and, I must say, with a good deal of justice in the contention. In my Annual Report of 1890, in referring to the Institution, I said: "It is, in every respect, a school, where "a practical system of education is adopted, and where the pupils are trained "in scholastic and industrial pursuits. It is in no sense a charitable institu- "tion, neither is it an asylum. Should it not, therefore, be placed where it "properly belongs—under the Educational Department of the Government? "We think we have the same right to such a classification as the Agricultural "College or Upper Canada College. It is because we are sensitive of the "inferior status accorded us by the present arrangements, and the incon- "sistent interpretations placed upon our work and merits, that I suggest "a change. We want to be recognized as a school and not as a prison or "charitable institution. Such a recognition would give us a higher, and "certainly a more reasonable, status, among similar institutions of this and "other countries." By the laws of the Province, the deaf are virtually classed with the insane, imbeciles and criminals. Every kind of educational institution in Ontario is under the administration of the Department of Education, except those for the deaf and the blind, and these are placed in another department, which has charge of the asylums and penal institutions. Our institution is subject to the same regulations and inspectorate as the gaols and asylums. The deaf, the large majority of whom are quite as intelligent and cultured, and whose feelings are quite as sensitive as those of other people generally, feel this incongruity very keenly. Every two years our graduates have a Convention somewhere in the Province, and usually about two hundred of them gather from the various counties near the place of meeting—Toronto, Grimsby Park, Belleville, and in June last London was favored, as noted heretofore. Altogether some five or six hundred deaf persons belong to the Association. At the London meeting, those assembled gave formal expression to their feelings by adopting unanimously the following resolution: "That we protest against the classification of the deaf with the insane, the criminals, and the objects of charity."

Some of our graduates have written me endorsing the action of the meeting - one only dissents from the conclusion arrived at. Extracts from their letters are herewith submitted:

A former male pupil, in Toronto, writes: "At the Convention held in London, amongst other resolutions, one was passed protesting against the deaf being placed in the same class with the insane, indigent and criminal, in charge of the Ontario Government. No doubt, the classifying of the deaf with the insane and criminal arises from a misconception of the capabilities of the former in the life of usefulness and good citizenship. But the world moves on, and it will not be long before justice is done to us. Being educated, we are enabled to take a hand with the hearing in the march of civilization and the development of general prosperity and

happiness. Everyone graduating from your school can be found working in different vocations, giving satisfaction to their employers. As to their worth and work, quite a number of them are married and own happy and comfortable homes in Toronto. They pay taxes just as hearing property owners do, and exercise their suffrage for good government, civil and political. Some of them have hearing children, and send them to the city schools, thus supporting the cause of education. In the city, we have societies and clubs of our own, notable among which I may mention the Maple Leaf Reading Club, the Brigden Club and the Dorcas Sewing Society. We have also Bible Classes, sending some members out to give help and encouragement to their brethren in adjacent cities and towns. We are not less loyal and patriotic than our hearing fellows in the defence of our country, and in our allegiance to His Majesty the King. Mr. Mathison, have we not done very well, considering the limitations of educational work at your school? Would some of us not have developed our minds wonderfully, and then filled better positions with ability and credit, had higher classes been established at your school, under the control of the Education Department of the Ontario Government? Surely that Department would take your school under its fostering care, and found there a High School or a Collegiate Institute, thus doing full justice to all. We must insist on the recognition by the Government of our just demand for higher education, and for our place under the proper department, to be separated from the insane and criminal—which are a danger to society."

A girl graduate, now happily married and living in Windsor, says: "Just a few words regarding the resolution passed at our late Convention, in London, protesting against our being classed with the insane, criminal and indigent classes. I am sure that we have long since proved that we do as much for the good of the world as mankind in general, that we are well able to take care of ourselves and carve out our own way, and that it is an insult to thus class us. However, this is an enlightened age, and the majority of intelligent persons have begun to recognize us at our true worth. Is there, after all, so very much difference between deaf and hearing persons? An educated deaf person is nearly always able to grasp a thing, while the other party is figuring it out. When I see in the papers that the 'Department of Public Charities,' at Toronto, is advertising for supplies for the 'Institutions for the Deaf and Dumb, the Blind and Feeble-Minded,' it makes me feel cheap. I think it is quite time our school was placed in charge of the Educational Department of Ontario. Don't you agree with me there? We would have better educational advantages than we now enjoy. I am sure that we are not rightly categorized as we now stand. Our young men are among the steadiest, soberest, most industrious and intelligent in Canada, and as for our girls, they are ladylike, intelligent and modest. This is a matter in which I am very much interested, not only as a deaf person, but as a graduate of your very excellent Institution. I wonder what would have become of me if you had not taken me in and educated me, after I was denied admittance at the Public Schools on account of losing my hearing. I hope this letter will have some effect in the right direction."

A successful business man in Brantford, who passed through the Institution a number of years ago, remarks: "There was one matter brought up at the Convention in London, which I hope will be brought to the attention of the Government of the Province. I refer to the resolution passed protesting against the Institution for the Deaf being classed with the insane and criminal institutions. I know you have the welfare of the deaf under you, and those who have attended the Institution, at heart, and I hope you

will use your influence to have this stigma removed, and have the Government place, at least the Educational work of the Institution, under the Educational Department of Ontario. I am sure the members of our Legislature would be in favor of such a change if they were aware of the injustice that is being done a large number of independent and self-respecting graduates of the Institution."

An energetic farmer and stock-raiser, living near Ottawa, remarks: "As you are aware, at nearly every Convention of the Deaf there has been a resolution passed protesting against the Educational Institution for the Deaf being classed as an Asylum or Charitable Institution, which we do not think is just to us, as only a very small percentage of the deaf are educated and clothed at the expense of the Government. While, to those persons not familiar with the deaf, the deaf are classed as paupers or imbeciles, as the name asylum implies, and as the Inspector is also Inspector of Prisons and Charitable Institutions, it gives also a false position to the deaf, who are as much entitled to an education as any other class; therefore, I think it only fair to the deaf that the Government should place the Institution under the Honorable Minister of Education, to whom, I think, it properly belongs, and who, I am sure, could give it the same intelligent management that has given the Ontario Educational system a foremost place in the civilized world. As I have said, resolutions have been passed protesting against the present position of the Institution of the Deaf and Dumb, which places us in the same class as paupers, or imbeciles, while we are at school, and the unthinking are apt to think us such, which adds to the already heavy load we have to carry. Resolutions are all right in their way, but unless brought to the notice of those in authority are of little practical use. You, dear sir, have the unbounded confidence of the deaf, and your position as head of the Institution for the Deaf and Dumb gives you an excellent opportunity to judge of the correctness of my remarks. Therefore, I trust you will kindly bring the resolutions of the Convention to the notice of the Government and give them the support you think best, and in so doing you will receive the warm thanks of the deaf in Ontario."

One of our cleverest graduates, a printer, does not agree with the others, and thus expresses his views: "Referring to the rsolution passed at the Convention at London, I am not in favor of it, as, in my humble opinion, the great percentage of the pupils attending the Institution are really supported out of the charity funds of the Province, or the municipality from which they hailed. Taking this fact into consideration, I do not see why the Institution should be taken from under the control of the Department of Prisons, Asylums and Public Charities, and placed under the Department of Education."

In the United States, the same invidious classification formerly existed in all the States, as it yet does in some; but many of the more advanced States have recognized its injustice, and have placed their institutions for the deaf and blind under the same executive administration as their other educational institutions. The Principal of the Virginia School for the Deaf gives his favorable opinion of the change, as follows:

"Since our School has parted company with the eleemosynary institutions, and been legally recognized as part of the Public School system of the State, its true character is becoming more generally known, and the attendance has vastly increased. We do not now have to send out agents to solicit patronage; the trouble is to make room for all who are clamoring for admission. This difficulty will soon be remedied, we trust, by increased facilities. But this elevation of our school to its right position has had a

more far-reaching effect. As long as our institution was classed among asylums and prisons, our pupils were looked upon as dependents, and were often referred to as 'patients' and 'inmates.' This was always mortifying to their sensitive natures, and had a strong tendency to repress aspirations to higher ideals. They felt that they were socially ostracised, as a class, and that there was nothing ahead of them but as 'hewers of wood and drawers of water.' Now since they have been invested with their just rights, they appreciate the dignity of their position, and the possibilities before them, and slumbering ambition has been aroused. They feel that the way is clear to business success and social elevation, and 'clannishness' is no longer so apparent. Our school has been brought into much greater prominence, and the public generally are taking far more interest in the work that we are doing. Our pupils receive more favorable notice, and many little social courtesies are extended them which have a tendency to sweeten their lives and make them forget that they are in any way different from other people. The effect of the change is strikingly shown in the greater progress made both in the school rooms and in the workshops. Every department is working at high pressure, and the results are most encouraging. This gratifying showing is due mainly to the fact that the tone of the school has been elevated and our pupils inspired with higher hopes."

In Toronto, more especially, the deaf evince a lively interest in many good works, and by meeting together as club and debating society members, improve themselves mentally and morally. As a power for good, the Deaf-Mute Christian Association stands out prominently. Organized many years ago for the non-denominational religious instruction of the deaf, its growing influence has been most encouraging. Commencing with one meeting each Sunday, the work has grown, until now there are three different Sunday morning services held in various portions of the city, and a general meeting of the whole body on Sunday afternoons in the Bible Training School, College Street. The public are heartily welcome at any of the meetings. The meetings are nearly all presided over, and ministered to by deaf lay workers, Mr. J. D. Nasmith, and his assistant, Miss A. Fraser, being the only hearing persons in connection with the mission, and much of its success is due to them. In addition to the Sunday services, weekly meetings are held for Bible study and mutual help. The influence of the Association is not confined to the city; missions have been organized at Hamilton, Brantford, London, Oakville, Berlin, and other places, supplied and ministered to as often as possible by the deaf Christian workers of Toronto. Another power for good has been added during the past three years,—a Bible Conference during Christmas week,—to which all the deaf from outside places who can come are invited. During three or four days these special meetings go on, the deaf workingmen of Toronto sacrificing much time from their regular employment for the spiritual uplifting of their deaf brothers and sisters from the country.

The Dorcas Sewing Society is one of the most effective offshoots from the Toronto Mission. The Society was organized by Miss Fraser three years ago, and the meetings have been successfully maintained since its commencement. The main object of the Society is to arouse the interest and practical sympathy of deaf women in Christian work outside their own homes, and to give them the blessing of realizing that they also have the power to become fellow workers with God by laboring for the good of others. There has always existed a large measure of the spirit of fellow-feeling and mutual helpfulness amongst the deaf mothers, and the Society has aided much in rendering this spirit more effective, and in enlarging its

scope. The Society was founded on the avowed religious principle that the work done should be done for God, and given to man for His sake, and thus be made a means of helping in the growth of a living faith. In arranging for the work, the first thing considered was, how it could be made available in helping the deaf, and where help might be most wisely and efficiently given. Complete outfits of clothing were provided for some deaf children of the poor, who might without this assistance have been delayed from admission to the Institution. Overburdened deaf mothers were helped and not till there was no immediate call from the deaf community was the work extended to make contributions to some of the Canadian Home Missions, contributions that have been gratefully recognized in letters received from the Far North. As home keepers and home workers, in general effectiveness, in skill, in economy and in ready adaptation, the deaf mothers show themselves quite equal to the same number of their hearing fellows. Indeed, it is a doubtful point whether they would not win the palm for the highest average of executive ability.

The promotion of social and literary clubs amongst the deaf, under good auspices and careful regulations, is as fruitful of sterling results as any project that can engage the energies of those who seek to do a little good in the world. In the larger cities the need of such clubs becomes a crying want. By a natural law, the deaf must associate in some way, and if provision is not made for a safe and useful outlet for this strong impulse, it is inevitable that it will, at times, run in ways injurious to character and fertile of evil. Experience of this fact in Toronto led to an effort to start a club that should offer an opportunity, under good conditions, for pleasant intercourse and innocent recreation, and the Brigden Club was organized, several years ago. It was at first a very tentative affair. A small room was rented in a central situation, for three evenings in a week. Chess, draughts, crokinole, and other games were provided, and a ten-minutes' pointed talk was given at the close of the evening. This effort was very incomplete in many ways, but it was sufficient to start the spirit of healthful association, and the following season the deaf young men took hold of the idea in a vigorous fashion. A good committee was got together, all deaf men in the city drummed up, and a strong society formed with sufficient subscriptions to rent a large room, well warmed and lighted, and open every evening. Newspapers and magazines were provided, and excellent regulations were framed. The club has worked well and harmoniously; there has been plenty of fun and enjoyment. Exclusive devotion to religious activity, however admirable, does not altogether fill the bill, and where there is any number of young men, may, indeed, fail of best results, in a greater or less degree. The deaf answer as eagerly to the call for mental exertion and improvement as any other class, and to them also it is as fruitful of good. None need more to be taken out of the narrow range of personalities, and to be delivered from that fettering of attention that breeds so many of the smaller evils of social life. After leaving the Institution, unless in very favorable surroundings, the deaf are apt to deteriorate both in mind and character, and it is a tribute to the value and nature of the training there received that when fresh from their Alma Mater they are in the best state to profit by and enter into such a society.

The Maple Leaf Debating Club, organized by the deaf, and banded together for mutual improvement, is an ideal literary club, from which many similar clubs among the hearing might glean valuable pointers. Its leader and originator, Mr. F. Brigden, himself a semi-mute, is devoted heart and mind to lift the deaf to noble aspirations. Earnestness on the part of both teacher and student is essential to success, and in such co-op-

eration the club is gaining excellent results. The club meets every alternate Thursday evening, spending a limit of two hours together with pleasure and profit. As arranged, two or more of the members are expected to express their ideas on the leading questions of the day, with brief lectures, dialogues or recitations sufficient for one hour, then follows the study for another hour in English History. Among the subjects of lectures delivered last year were: Dickens, the fascinating writer of "David Copperfield" and "Oliver Twist"; Chinese Gordon, the fearless General and devout Christian; Lady Burdett Coutts, the London philanthropist; and Socrates, the Greek philosopher. Biographic lectures like the above, limited to a time of thirty minutes, took a strong hold on the members, and will be renewed.

In this report will be found half-tone cuts of Officers, Teachers and Pupils of the Institution, the Convention of Graduates at London in June last, the members of the Brigden Club, the Maple Leaf Debating Society and the Dorcas Society.

Deafness in itself is a serious handicap in the great struggle for subsistence, and, being irremedial, it must be, and is patiently endured; but the erroneous impressions created in the public mind by the present classification of the deaf with the insane and criminals, still further enhances the difficulty the deaf have in making their way in the world. This impediment, being easily remediable, should in all justice and kindness be removed. We have no cause of complaint with the manner in which the Institution has been administered by the Department of the Honorable the Provincial Secretary, as at all times we have been treated with the greatest kindness, consideration and liberality, and no change could benefit us in these respects. This Institution is simply and only a school for the deaf, established for the same purpose, and performing the same functions, as the other free Public Schools in the Province, and I, therefore, respectfully but earnestly urge upon the consideration of the Honorable the Provincial Secretary the desirability of transferring the administration of the Institution to the Department of Education, to which it rightfully and properly belongs.

Census of the Deaf in Ontario.

The Census Bulletin recently issued contains information of interest to the deaf. The total number of deaf persons in Canada in 1891 was 4,819, and in 1901 was 6,174. The ratios per one thousand of population were 1.0037 in 1891 and 1.1608 in 1901. In Ontario the number of deaf in 1891 was 1603, and in 1901 it was 2,002, an increase of 399. The proportions per one thousand on these two years were 0.7581 and 0.9171 respectively, the increase being both actual and relative. This is an unwelcome and unlooked for revelation, for it was naturally to be expected that the relative proportion of the deaf would gradually but steadily and surely decrease with the advance of popular knowledge of the conditions that promote or lessen the tendency to deafness, the growth of medical science, and the presumed consequent ability to cope with the diseases that cause a large proportion of the cases of deafness. The increase may only be apparent, consequent possibly on a more accurate enumeration at the last census than at the previous ones, though this is rendered improbable by the fact that the returns show the number of blind people has decreased since 1891.

Domestic Science and Art.

Classes in Domestic Science and Domestic Art were formed the last week in September. In the Domestic Science Department there are four classes, in Domestic Art, two classes. In Class I. of Domestic Science there are six pupils, receiving instruction three times each week. As these girls may not return to the Institution another year, they devote more time to this work than the other classes. During the term all will receive instruction in Housekeeping Duties, Plain Cooking, and the duties of Waitresses. All manifest a keen interest in the work, while the progress made in so short a time is gratifying, far beyond what was anticipated. There is every reason to believe that in the future the work of the pupils will compare favorably with that of speaking children. Not only are the pupils receiving instruction in practical work, but they have an opportunity to use the language already acquired. Questions are written on the blackboard, the pupils writing the answers. This is not a minor consideration. In Classes II., III., IV., there are twenty-four pupils. These classes are formed from the Public School classes, and receive instruction twice a week. As far as possible, it has been arranged that the time spent in the Domestic Department will not interfere with the regular course of study. The interest shown by these pupils is no less than that of Class I., while their progress is creditable. It would be advisable to have the pupils spend at least three years in this department. This may seem a long period to many, but when we consider that the work is the work for a lifetime, it does not seem too long. Both parents and children would find it a great advantage. The equipment of the kitchen is quite complete, but in order to assist the pupils to adapt themselves to surroundings, the teacher will, at times, place them in a position where the equipment is limited.

In Sewing there are two classes of boys, receiving instruction twice a week (one-half (1-2) hour periods). Class I. is composed of fifteen boys, Class II. of nineteen boys. These will be taught the various stitch forms, as running, basting, etc., mending and the making of various models, in order to practise the stitch forms. They are taught to do all their work neatly and accurately. The interest shown by the boys in their work equals that of the girls in Domestic Science, while the progress is really marked. In these Classes, as in Domestic Science, the course is not covered as quickly as it would be covered by speaking children, but the work, when completed, is well done. We are deeply indebted to Mrs. Hoodless, of the Normal College of Domestic Science, at Hamilton, for her valuable and personal assistance in many ways since we first thought of opening this department a couple of years ago. Miss Watson, of the College, has also been very helpful.

Industrial Departments.

The Foreman of the Shoe Shop reports that during the session the pupils have worked steadily, and all except three have made satisfactory progress. Nearly all the other pupils made very good advancement; while the average age is below other years, yet the work has not deteriorated. There has been a continuance of work for the twenty-six boys in the shop, and the orders received from some of the other Institutions has given them a chance for excellent preliminary training for finer and more advanced work, which they have had from time to time.

Several lads graduated from the Printing Office, one or two with a good knowledge of typesetting and press work. One or two others have remained

at home, who are not capable of taking a place in an ordinary printing office. Sometimes a boy will get it into his head that as soon as he can set a thousand or two of type in a day that he is a printer, and wants to earn money for himself.

The work in the Barber Shop this year has not been up to that of former years, owing to the fact that but little attention can be paid to the work in that line; notwithstanding, this year several of the young men have improved considerably, and during next session will make further progress.

The pupils in the Manual Training Shop are doing excellent work.

Two of the lads who were in the Bakery last year are now working at the trade outside, and are doing well.

The girls at Tailoring, Dressmaking, Plain and Fancy Sewing, have made excellent progress.

Miscellaneous.

The increased cost of fuel and other necessaries, will necessitate a larger appropriation for our maintenance next year.

The general health has been good during the year, and there were no deaths to record. The Physician's report refers more particularly to this matter.

The publishers of a large number of Canadian papers, and also of the United States, have favored us with their publications, for which we thank them.

The returns from the farm and garden are satisfactory, except in potatoes, which, owing to the extremely wet weather, rotted in the ground to a great extent.

Our Institution re-opened on the 24th inst., with 250 pupils in attendance, and a few more to come. Thirty-three new pupils were admitted for the year closing on the 30th of September.

Officers, Teachers and employees generally, have been loyal and anxious for the success of the work in their several departments. Where all have worked so satisfactorily, it would be invidious to particularize.

Mr. William Nurse, promoted to the position of Storekeeper and Associate Supervisor, is performing his duties very satisfactorily. His place in the Shoe Shop has been taken by Mr. Alex. Morrice, Jr.

At this date, we have more girls than boys in the Institution as pupils. Such a thing has never happened before, and in most of the Institutions on the other side, the preponderance of numbers is always in favor of the boys.

Quite a number of our larger boys remained at home this year, as they have secured remunerative employment. It is a great mistake for some of them, as they are not sufficiently advanced in their scholastic training to get along through life. In a few cases, the parents wanted the labor of the boys.

The following named clergymen have favored us during the year: Rev. Canon Burke; Right Rev. Monseignor Farrelley, V.G.; Rev. G. W. Beamish (English Church); Rev. A. H. Drum (Presbyterian); Rev. J. W. Crothers, B.A., D.D., (Methodist); Rev. O. C. Elliott (Baptist); Rev. M. W. McLean (Presbyterian); the Rev. Father O'Brien, Rev. J. R. Real, Rev. J. Bates, Rev. Jos. Locke (Methodists).

We have had a number of changes during the year in our staffs. Miss Ida Jack, a valued teacher, retired in June on accout of ill-health; Mr. William Douglas, Storekeeper, resigned to go into business on his own account;

Miss L. N. Metcalfe, owing to illness, resigned. We parted with the foregoing named with extreme regret, as they were valued helpers. Mr. Ingram, Miss Gowsell and Miss Austin are with us now, and give promise of usefulness in their several places.

Rev. Canon Burke, when he resigned his charge in Belleville, moved to Carleton Place, to spend the remainder of his days with relatives. We were all very sorry, indeed, to lose Mr. Burke from the Institution. For over twenty-five years he had been most faithful and regular in his ministrations to the pupils of his Church, and not only they, but all the other children, had been the recipients of many kindnesses at his hands. He is still retained on the list of visiting clergymen, as he purposes coming to see us once in a while.

With a loyal and earnest staff of officers and teachers, good work for the deaf of our Province has been done in the years that are gone. This Institution has been a blessing to over twelve hundred deaf children and their parents. Under Divine guidance and assistance, we hope to accomplish even more in the future.

I have the honor to be sir,

Your obedient servant,

R. MATHISON, Superintendent.

Statement of cost per pupil, 1900-1901 and 1901-1902.

Heading.	Total expenditure, year ending September 30, 1901.	Yearly cost per pupil, September 30, 1901.	Weekly cost per pupil, September 30, 1901.	Total expenditure, year ending September 30, 1902.	Yearly cost per pupil, September 30, 1902.	Weekly cost per pupil, September 30, 1902.
	$ c.	$ c.	c.m	$ c.	$ c.	$ c.m
Medical Department	246 07	96	01.8	304 09	1 20	02.3
Butchers' meat, fowl, fish	3,247 29	12 63	24	3,077 35	12 16	23.3
Flour, etc	1,323 29	5 15	10	1,283 80	5 08	09.4
Butter and milk	2,235 22	8 70	17	2,358 38	9 32	18
General groceries	2,455 78	9 55	18 3	2,176 36	8 60	16.5
Fruit and vegetables	733 55	2 85	05.4	723 90	2 86	05.5
Bedding and clothing	400 19	1 56	03	500 21	1 98	03.8
Fuel	8,044 24	31 30	61.9	2,721 18	10 76	20.7
Light	1,131 03	4 40	08.4	1,129 60	4 46	08.6
Laundry, etc	340 75	1 33	02.5	463 69	1 83	03.5
Books and apparatus	477 81	1 86	03 5	472 22	1 87	03.6
Printing, postage, etc	545 68	2 12	04	623 27	2 46	04.7
Furniture and furnishings	744 63	2 90	05 5	627 33	2 48	04.8
Farm, etc	597 84	2 33	04.4	571 25	2 26	04.3
Repairs	715 89	2 79	05 3	754 39	2 98	05.7
Miscellaneous, including water, etc.	1,651 20	6 42	12	2,079 13	8 22	15.8
Salaries and wages	22,632 83	88 07	1 69	23,096 60	91 29	1 75.5
Totals	47,523 29	184 92	3 56	42,962 76	169 81	3 26

	1900-01	1901-2
Average number of pupils	257	253
Annual cost per pupil	$184 92	$169 81
Weekly " "	3 56	3 26

Respectfully submitted,

W. COCHRANE, Bursar.

NOTE.—The apparent reduction in per capita cost is principally accounted for by the fact that we have barely one-half of our coal supply received as yet.

W. COCHRANE, Bursar.

PHYSICIAN'S REPORT.

To Dr. T. F. Chamberlain, Inspector of Public Institutions, Toronto, Ont:

Dear Sir,—In submitting this Report, for your consideration, of the Ontario Institution for the Education of the Deaf and Dumb at Belleville, it gives me very great pleasure to be able to state that the past year has been a very fortunate one in reference to sickness.

There have been but four cases of serious illness during the whole year, and no deaths, two cases of Rheumatism, one of Erysipelas and one of Pneumonia.

Early in the last Session, a pupil brought Measles into the Institution from the city, and about sixty-five (65) cases resulted. All made good recoveries, without apparent after effects. Many minor affections, such as colds, sprains and bruises, are constantly occurring, but recovery is always rapid. A little girl developed Typhoid Fever at the beginning of this Session. She was ill at the opening, so it is evident that she brought the disease with her. There were several cases of this disease in the immediate vicinity of her home. The health of the pupils and teachers at present is all that could be desired.

I have the honor to be, sir, your obedient servant,

(Signed) P. D. GOLDSMITH, M.D., M.R.C.P.

EXAMINER'S REPORT.

T. F. Chamberlain, Esq., M.D., Provincial Inspector of Public Institutions, Toronto, Ont.:

Dear Sir,—I have pleasure in submitting my Report on the Institute for the Deaf and Dumb, which, as requested by you, I inspected during the days from May 30th to June 5th inclusive.

There were in attendance at the Institution at the time of my visit 257 students, varying in ages from 7 to 22 years,—some few in the work shops were a little older. These are organized into 13 Classes, in charge of as many teachers, who give instruction by the manual and written alphabets, employing also a "sign language," so far as it is necessary to convey ideas to pupils in the lower classes, and sometimes in the more advanced classes when rapidity is required in the interchange of thought between pupils and teachers. The number enrolled in each class ,varies from 16 to 22. As much of the instruction is necessarily individual, and the written answers and exercises of every pupil must be read by the teacher, the number in each class seems to be generally too great. Fourteen or fifteen pupils is, I think, as many as one teacher can handle to the greatest advantage. I cannot say, however, as a result of my examination of the classes, that the interests of any of the children are suffering; on the contrary, I think that, under the circumstances, they are making wonderful progress in their work.

The course of studies prescribed for the Institution is made to harmonize as much as possible with the work of the Public Schools, with special attention to those subjects which are best calculated to afford scope for the development of language power. I began the examination in the lower classes, where the children are learning the names of objects, words which express quality, quantity and number, and the simpler forms of "action words," and, as they advance, combining them into "stories" or sentences. The utmost care is observed that the pupils get the idea first, then the word or words which give expression to it. In the presence of the class, simple actions, and, later on, actions of a more complicated character are performed, often by one or more of the pupils, and all are then asked, or, if necessary, taught, to write sentences telling what has been

done. Many other devices are resorted to to give the pupils a copious vocabulary and a good grasp of pure, simple, idiomatic English.

Geography is systematically taught in all the grades after the second, history in the two higher grades, and numberless forms of composition exercises are taken up throughout the whole course, so that in the higher classes the pupils have a good knowledge of the more important facts of Canadian history and of the outlines of geography, and they write letters, simple narratives and descriptions with the greatest facility.

Instruction in numbers begins at an early period in the school life of the children, and is continued throughout the whole course. In the intermediate grades, some of the classes were very bright, quick and accurate in the solution of simple problems, and in mechanical operations, and in the higher grades, they have acquired considerable skill in making the more difficult calculations arising out of ordinary business transactions, including weights, measures, currency and mensuration of rectangular surfaces with the application of fractions.

Much attention is paid to plain, easily-produced, legible writing; among the great number of pupils in attendance, there is very little bad writing, and much that is really excellent. The spelling in all the classes is almost faultless. Every exercise is conducted with a view to developing as much as possible the language power of the child.

There are two additional teachers giving instruction in articulation and the reading of the lips to such children as show any capacity for receiving such instruction. Both teachers are doing the same grade of work throughout, each having about 30 pupils in charge, and each charge being sub-divided into six classes, with from 4 to 6 pupils in each class. The greater part of the work is individual teaching of the most delicate kind, and it is, therefore, necessary that the classes be small. The work is nicely graded from the lowest class, where the pupils are learning to articulate elementary sounds, names of common things, and simple sentences, to the highest, where they read the teachers' lips readily, and speak quite intelligibly, asking questions, making known their wants, and engaging in conversation. The work is conducted in all the classes in a most interesting manner; both teachers are earnest, skilful and enthusiastic, and the results of their work are, indeed, very satisfactory.

This school is a model in its organization. The Superintendent himself is a master of detail, and the spell of his zeal and untiring devotion to duty seems to influence everybody. He has gathered about him a staff of earnest, capable teachers, who give their days and their nights cheerfully and conscientiously to the important duties they have undertaken. Although the ordinary class-room work does not begin till 9 o'clock, the teachers are all regularly in their places at 8.30 in the morning; the children are assembled in the chapel at 8.45 for the opening exercises, and promptly at 9 all are in their class-rooms, and the work of the day begins.

The classification of the pupils is made in such a way as to have in the same room and under the same teacher those children whose attainments and capacity for receiving instruction are as nearly as possible on the same level. Age, size and temperament are considered in the classification and promotion of the pupils, and special provision is made for slow and dull children, and for those whose parents had neglected to take advantage of the institution until the children were advanced in years much beyond the prescribed age of admission.

For promotion, a comprehensive examination is given at the end of each year, covering very fully the work of the term. A tabulated statement of the marks obtained by the pupils, the teacher's written estimate of the fitness of each for promotion, with very full notes as to health,

application, progress, temperament and intellectual ability, are prepared and filed with the Superintendent, and form an excellent basis on which to classify the students for the ensuing year. The promotion examination for this year was just concluded when I began my inspection. I made a careful study of the examination papers, the pupils' answer papers and of the marks awarded. I found that the examination covered a wide range of work, that the answer papers showed an intelligent appreciation on the part of the pupils of the instruction which had been given during the year, that the papers were read closely and carefully, and that the standing of the pupils, as indicated by the marks obtained—a statement of which is herewith enclosed—was verified very generally by my own examination. The percentages obtained by the various classes are not in all cases a safe criterion of the comparative efficiency of the teachers, nor are they intended to be; some of the examination papers covered the prescribed course a little more searchingly, and some answers were, perhaps, read a little more severely, than others. The results, I am sure, you will regard as being in every case very satisfactory.

In addition to their ordinary school work, the girls are receiving instruction in sewing, and in the performance of ordinary household duties, at fixed hours every day, and 6 or 7 of the older girls, who have completed the literary course, attend the sewing class during the whole day, where, under a competent instructress, they receive special instruction in dressmaking and in the manufacture of other articles of wearing apparel; fancy needlework has also an important place in the sewing-room; it is taken up after 4 o'clock, and many of the children have acquired considerable taste and skill in the work.

A room is at the present time being fitted up and equipped, and the other necessary steps are being taken, for the establishment of a class in Domestic Science at an early date. There can be no two opinions as to the wisdom and the propriety of this step, and I have no doubt that it will prove to be one of the most important departments in the Institution.

For the boys, a suitable workshop, properly equipped, has been fitted up for Manual Training. This department is in charge of a skilful, and in every way a very capable, instructor. The work undertaken embraces the manufacture of a great variety of articles, from a flat ruler or a paper-knife to the more difficult dovetailing and mortised work. The models do not include knick-knacks, toys, or baby carpentry; all are useful articles, and such as stimulate the greatest interest on the part of the workers. No lathes or other machinery are used; the simple hand tools, such as plane, saw, square, brace and bit, chisel and mallet, etc., are the only instruments employed. There was on hand at the time of my visit a large stock of the articles which had been made by the students, and everything that I examined was as perfect in workmanship and as delicately finished as if done by the most skilled artisan with the most modern machinery—was, in fact, in its way, a work of art, reflecting the highest credit on both student and instructor.

Although the accommodation and equipment for this work is almost perfect, as far as it goes, I regret to say that it is not planned on a sufficiently extensive scale to serve its highest purpose in a school of this kind. Only twelve students, selected from among those who are thought to have the greatest aptitude for the work, are receiving the instruction at the present time. When it is reflected that those who have the least aptitude in this direction need the training most, it will be seen that this department has a much wider field for usefulness in connection with the Institution than that which it is filling at the present time.

One of the most pleasing features of the work of the school, which came under my observation, is the fact that in every department children are acquiring habits of neatness, usefulness and industry to an extent much beyond their years. A few of the larger boys are learning printing, carpentering, baking and shoemaking under competent instructors.

The discipline of the school is of a very high order; the children are not only well-behaved in the class-rooms, but everywhere one meets a pupil—in the halls, in the play-room, or on the grounds—he sees something to indicate that the training given in the school is such as is calculated to develop the best and most pleasing types of character. The boys are manly, respectful and courteous, and in their games and amusements they are self-restraining and agreeable, and the girls seem at all times to be models of refinement and good manners. This state of things is brought about without the slightest semblance of harshness. Everywhere one is afforded evidence that the high moral tone that pervades the whole institution is maintained under a kindly sympathetic supervision by the teachers and officers in charge.

The play-grounds are extensive, tastefully laid out, and carefully kept. A large area is set apart for all kinds of boyish sports, while the girls romp, during recreations, over neatly-kept lawns and along shaded walks, or rest under the spreading branches of beautiful shade trees.

The building is a large brick structure, imposing in appearance, and very well laid out for a limited number of pupils. The attendance has, however, altogether outgrown the accommodation, and the inmates—pupils, teachers and officers—must have something of the feeling of being huddled together. Some of the class-rooms are large enough for the size of the classes, but many of them were never intended for class-rooms, are much too small, wretchedly ventilated, and are otherwise ill-suited to their present purpose. The lighting is generally sufficient, but in many of the class-rooms the light falls from the right of the pupils, and, as the greater part of the exercises are written, and the hand is always throwing a shadow on the page, it is apt to cause or to intensify impairment of vision. I should be glad to see a suitable school building of the most modern type of school architecture erected apart from the other buildings. I think, too, that a suitable gymnasium, properly equipped, and in charge of a competent physical instructor, is one of the pressing needs of the institution at the present time.

The class-rooms, halls, staircases, assembly-rooms and dormitories are kept scrupulously neat and clean, and, notwithstanding the imperfect system of ventilation, through the careful and unremitting attention of teachers and officers, no one is in danger of suffering from want of pure fresh air.

This excellent school for the deaf is most efficiently administered, and it is serving its purpose exceptionally well. It possesses that rare distinction among public institutions generally of being able to command the respect of everybody who knows it, and to hold itself above adverse criticism. In its administration and the character of the work which it is doing, it is a credit to the Province.

In my inspection of the Institution, every facility was afforded me to obtain an accurate knowledge of its management, and of the standing of the various classes. I am deeply indebted to the Superintendent and his staff, and to the officers, for many kindnesses extended to me during my visit, and particularly for assistance given me in connection with my work.

Very respectfully submitted,

Peterborough, June 10th, 1902. MICHAEL O'BRIEN.

Officers, Teachers and Pupils.

Deaf Mute Girls Signing "Nearer My God to Thee" at the Institution.

The (Deaf-Mute) Dorcas Society, Toronto.

Members (Deaf-Mute) Brigden Club, Toronto.

Little Deaf Mute Girls Signing "Now I Lay Me Down to Sleep," at the Institution.

Total number of Pupils in attendance for the session 1901-02.

Males	147
Females	141
Total	288
Number of boys admitted since the opening of institution	707
" girls " " " "	554
Total	1,261

Counties from which Pupils during the year came.

Counties.	No.	Counties.	No.
Algoma	4	Middlesex	5
Brant	3	Norfolk	3
Bruce	9	Northumberland	4
Carleton	16	Ontario	4
Cardwell	1	Oxford	10
Cornwall	1	Peel	4
Durham	1	Parry Sound District	3
Dufferin	2	Perth	5
Elgin	2	Peterborough	8
Essex	11	Prescott and Russell	9
Frontenac	2	Prince Edward	2
Grey	9	Renfrew	9
Glengarry	3	Simcoe	9
Hastings	13	Stormont	1
Haliburton	4	Dundas and Glengarry	3
Huron	7	Thunder Bay District	1
Halton	4	Victoria	6
Haldimand	4	Waterloo	6
Kent	13	Welland	1
Lambton	11	Wellington	4
Lanark	3	Wentworth	13
Leeds and Grenville	4	York	34
Lincoln	3		
Lennox and Addington	9	Total	288
Muskoka	5		

Counties from which the Pupils in residence on the 30th September were originally received.

Counties.	Male.	Female.	Total.	Counties.	Male.	Female.	Total.
Algoma	1	3	4	Muskoka District	4	1	5
Brant	2	....	2	Middlesex	2	3	5
Bruce	4	5	9	Norfolk	1	2	3
Carleton	12	4	16	Northumberland	2	2	4
Cardwell	....	1	1	Ontario	2	2	4
Cornwall	1	....	1	Oxford	5	5	10
Durham	....	1	1	Peel	1	3	4
Dufferin	....	2	2	Parry Sound District	1	2	3
Elgin	1	1	1	Perth	3	2	5
Essex	5	6	11	Peterborough	3	5	8
Frontenac	....	2	2	Prescott and Russell	5	4	9
Grey	4	6	10	Prince Edward	1	1	2
Glengarry	1	2	3	Renfrew	4	5	9
Hastings	6	7	13	Simcoe	4	5	9
Haliburton	2	2	4	Stormont, Dundas and Glengarry	3	1	4
Huron	5	2	7	Thunder Bay District	....	1	1
Halton	....	3	3	Victoria	3	3	6
Haldimand	2	2	4	Waterloo	4	2	6
Kent	7	6	13	Welland	1	....	1
Lambton	4	7	11	Wellington	1	3	4
Lanark	1	2	3	Wentworth	7	6	13
Leeds and Grenville	3	1	4	York	21	14	35
Lincoln	1	2	3				
Lennox and Addington	7	2	9		147	141	288

Age of Pupils.

Age.	No.	Age.	No.
6	2	17	26
7	10	18	18
8	16	19	14
9	25	20	9
10	18	21	6
11	18	22	7
12	18	24	1
13	29	25	2
14	18	29	1
15	21		
16	29	Total	288

Number of Pupils in attendance each official year since the opening of the Institution.

	Male.	Female.	Total.
From October 27th, 1870, to Sept. 30th, 1871	64	36	100
" 1st, 1871, " 1872	97	52	149
" " 1872, " 1873	130	63	193
" " 1873, " 1874	145	76	221
" " 1874, " 1875	155	83	238
" " 1875, " 1876	160	96	256
" " 1876, " 1877	167	104	271
" " 1877, " 1878	166	111	277
" " 1878, " 1879	164	105	269
" " 1879, " 1880	162	119	281
" " 1880, " 1881	164	132	296
" " 1881, " 1882	165	138	303
" " 1882, " 1883	158	135	293
" " 1883, " 1884	156	130	286
" " 1884, " 1885	168	116	284
" " 1885, " 1886	161	112	273
" " 1886, " 1887	151	113	264
" " 1887, " 1888	156	109	265
" " 1888 " 1889	153	121	274
" " 1889, " 1890	159	132	291
" " 1890, " 1891	166	130	296
" " 1891, " 1892	158	127	285
" " 1892, " 1893	162	136	298
" " 1893, " 1894	158	137	295
" " 1894, " 1895	160	135	295
" " 1895, " 1896	173	137	310
" " 1896, " 1897	164	128	292
" " 1897, " 1898	167	138	305
" " 1898, " 1899	161	132	293
" " 1899, " 1900	152	130	282
" " 1900, " 1901	157	143	300
" " 1901, " 1902	147	141	288

Date of Deafness after birth.

Under 1 year	154	Between 10 and 11 years	5
Between 1 and 2 years	149	" 11 " 12 "	2
" 2 " 3 "	132	" 12 " 13 "	3
" 3 " 4 "	67	" 13 " 14 "	4
" 4 " 5 "	43	" 14 " 15 "	2
" 5 " 6 "	30	Unknown at what age they lost their hearing, but not born deaf	139
" 6 " 7 "	15	Congenital	487
" 7 " 8 "	11		
" 8 " 9 "	3	Total	1,261
" 9 " 10 "	10		

Cause of Deafness.

Abscess	5
Accident	10
Affection of the ears	18
Bronchitis	5
Bealing	2
Burns	2
Catarrh	9
Canker	1
Cerebro-spinal meningitis	26
Cholera	1
Cold	46
Congenital	487
Congestion of the brain	47
Diphtheria	9
Dysentery	2
Drank carbolic acid	1
Eczema	2
Falls	27
Fever, rheumatic	1
" bilious	5
" brain	32
" intermittent	2
" scarlet	84
" spinal	22
" malarial	2
" typhus	6
" typhoid	11
" undefined	27
Fits	14
Gathering of the ears	8
Gathering of the head	9
Inflammation of the brain	14
" " ears	5
" " lungs	5
" " pulmonary organs	2
" " spinal organs	3
La Grippe	7
Measles	45
Mumps	7
Paralytic stroke	1
Rickets	1
Sunstroke	1
Scabs	1
Scalds	1
Scrofula	1
Scald Head	4
Sore throat	2
Shocks	5
Sickness undefined	32
Spinal disease	3
Swelling on the neck	2
Teething	18
Vaccination	7
Water on the brain	17
Whooping Cough	8
Worms	155
Cases undefined and unknown	1
Chicken Pox	
Total	1,261

Relationship of Parents.

First cousins	63
Second cousins	28
Third cousins	23
Distantly related	27
Not related	1,091
Unknown	29
Total	1,261

Number of Deaf Mute families represented.

2	families contained	5		10
6	" "	4		24
25	" "	3		75
89	" "	2		178
974	" "	1		974
	Total			1,261

MINISTER OF THE GOVERNMENT IN CHARGE:

HON. J. R. STRATTON, Toronto.

GOVERNMENT INSPECTOR:

DR. T. F. CHAMBERLAIN, Toronto.

OFFICERS OF THE INSTITUTION:

R. MATHISON, M. A ..... *Superintendent.*
WM. COCHRANE ..... *Bursar.*
P. D. GOLDSMITH, M. D. ..... *Physician.*
MISS ISABEL WALKER ..... *Matron.*

TEACHERS:

DR. R. COLEMAN, M. A., *Head Teacher.*
P. DENYS.
JAMES C. BALIS, B. A.
W. J. CAMPBELL,
GEO. F. STEWART.
T. C. FORRESTER.
H. L. INGRAM,
MRS. J. G. TERRILL
MISS S. TEMPLETON,
MISS MARY BULL,
MRS. SYLVIA L. BALIS,
MISSS GEORGINA LINN,
MISS ADA JAMES,

M. J. Madden, *(Monitor Teacher.)*

Teachers of Articulation:

Miss Annie Mathison, *(Temporary.)*

Miss Caroline Gibson.

Miss Mary Bull, *Teacher of Fancy Work.*

T. C. Forrester, *Teacher of Manual Training.*

Miss Hattie H. Gowsell, *Teacher of Domestic Science.*

Miss H. Josie Austin, *Stenographer and Clerk.*

John T. Burns, *Instructor of Printing.*

Wm. Nurse *Storekeeper and Associate Supervisor.*

Alex. Morrice, Jr., *Master Shoemaker.*

G. G. Keith, *Supervisor of Boys, etc.*

Chas. J. Peppin, *Engineer.*

Miss M. Dempsey, *Seamstress, Supervisor of Girls, etc.*

John Dowrie, *Master Carpenter.*

Miss Jessie Lytle, *Trained Hospital Nurse.*

D. Cunningham, *Master Baker.*

John Moore, *Farmer and Gardener.*

List of Pupils in the Ontario Institute for the Education of the Deaf and Dumb for the year ending September 30th, 1902, with the Post Office addresses.

COUNTIES.	P.O. ADDRESS.
Algoma:	
Beatty, Rachel	Bruce Mines.
Dalgleish, Elizabeth	Sault Ste. Marie.
Ellis, Earl W	Sault Ste. Marie
Zinke Charles	do
Brant:	
Hustwayte, John F	Paris.
Mitchell, George L	Brantford.
Smith, William	Tuscarora.
Bruce:	
Green, Mary Annie	Chesley.
Kahbeejee, Peter	Chippawa Hill.
Lobsinger, Alexander	Mildmay.
Lorentz, Mary	do
McMaster, Robert	Lion's Head.
Yager, Norman	Chesley.
Yager, Jeanette	do
Komph, Spray	Kincardine.
Weiler, Diana	Mildmay.
Carleton:	
Cardinal, Etienne	Ottawa.
Cyr, Thomas	do
Chaine, Joseph	Hintonburg.
Green, Minnie May	Diamond.
Green, Thomas John	do
Gauthier, Alfred	Hintonburg.
Groulx, Welde	Clarkstown.
Groulx, Achil	do
Carleton *Continued.*	
Ethier, Martail	Ottawa.
Henault, Charles	do
Henault, Honore	do
Lett, William F.	Carp.
Larabie, Albert	Ottawa.
Larocque, Rosanna	Ottawa
McLaren, George David	Spring Hill.
McLaren, John Charles	Spring Hill.
Parrent, Sophia	Ottawa.
Scissons, Elizabeth	Dunrobin.
Cardwell:	
Henderson, Clara	Bolton
Cornwall:	
Kirk, John A	Cornwall.
Durham:	
Brooks, Effa M	Solina.
Dufferin:	
Aldcorn, Barbara	Corbetton.
Granger, Martha	Honeywood.
Elgin:	
Carpenter, Lena May	Rodney.
Smuck, Loyd	Aylmer.
Essex:	
Bain, Olive	Windsor.
Berthiaume, Marilda	Tecumseh
Berthiaume, Dorina	do

List of Pupils.—Continued.

COUNTIES.	P.O. ADDRESS.
ESSEX.—*Continued.*	
Bain, Josephine	Windsor.
Quick, Angus R	Pelee Island.
Langlois, Louis	Belle River.
Penprase, Ruth	Elmstead.
Petrimoulx, George	River Canard.
Sauve, Telesphore	St. Joachim.
Meloche, Edmund	Amherstburg.
Little, Grace	Windsor.
FRONTENAC:	
Barnett, Winnifred	Sydenham.
Watts, David H	Portsmouth.
GREY:	
Brown, Annie	Peabody.
Brown, Mary Louisa	do
Dand, William T	Lady Bank.
Fleming, Daniel	Craigleith.
Johnson, Bertha N	Owen Sound.
Love, Joseph	Hopeville.
Myers, Mary	Lady Bank.
McGuire, Lily E	Glenedon.
Noble, Edgar	Durham.
GLENGARRY:	
Gordon, Daniel George	Bridge End.
Gordon, Mary Jane	do
Gordon, Annie M. E	do
HASTINGS:	
Branscombe, Florence	Frankford.
Courneya, Mary A	Otter Creek.
Farnham, Leona	Canifton.
Fox, Annie	Trenton.
Gerow, Daniel	Belleville.
Hough, Ethel Viola	Chatterton.
Herman, Nina Pearl	Stirling.
Lowry, Charles	Bridgewater.
Scrimshaw, James H	Big Springs.
Smith, Earl A	Deseronto.
Young, Arthur	Madoc.
Young, Fred	do
Nelson, Ethel	Belleville.
HALIBURTON:	
Eastman, Alma M	Minden.
Gray, Violet	South Lake.
Otto, Charles	Haliburton.
Rooney, Francis	Kinmount.
HURON:	
Anderson, Harvey	Dungannon.
Cole, Amos. B	Clinton.
Gies, Albert E	Zurich
Laporte, Leon	Drysdale.
Thompson, Beatrice	Dungannon.
Thompson, Arthur E	do
Young, Clara E	Londesborough.
HALTON:	
Hartley, Clara	Milton.
James, Mary T	Kilbride.
Moore, Rose Ann	Milton.
Smith, Maggie	Acton.
HALDIMAND:	
Armstrong, Jarvis E	Jarvis.
Forrester, Harry	Dunnville.
Johnston, Annetta	Tynside.
Young, Roseta	Dunnville.
KENT:	
Beno, Richard	Tilbury.
Chevalier, William	do
Dale, Minnie B	Chatham.
Deary, Joseph	Highgate.
Gibson, Winnifred	Dresden.
Gibson, Maggie	do
Lowes, George C	Kent Bridge.

COUNTIES.	P.O. ADDRESS.
KENT.—*Continued.*	
McGregor, Maxwell	Ridgetown.
McDonald, Sarah	Duart.
Parker, Beatrice	Dresden.
Wilson, Herbert	Chatham.
Welch, Herbert	Bothwell.
Thibeault, Mary A	Fletcher.
LAMBTON.	
Babcock, Ida E	Petrolea.
Bissell, Thos. E	Sarnia.
Breault, Gertie	do
Esson, Margaret	Oil Springs.
Jackson, Elroy	do
Mason, Lucy S	Forest.
Moore, George H	Forest.
Scott, Henry	do
Showers, Mary	Shetland.
Showers, Catherine	do
Watts, Grace	Thedford.
LANARK:	
Campbell, Samuel	Caldwell's Mills.
McGregor, Ruby V	Almonte.
Pollock, Bessie	do
LEEDS AND GRENVILLE:	
Burchill, Cora	Merrickville.
Baker, Fred	Brockville.
Croan, Thomas R	Merrickville.
Countryman, Harvey	Prescott.
LINCOLN:	
Duncan, Walter	St. Catharines.
Hoare, Ethel May	do
McCready, Aletha	Caistor Centre.
LENNOX AND ADDINGTON:	
Barnett, Gerald	Sydenham.
Grooms, Harry	Napanee.
Hartwick, Olive	do
Hartwick, Archibald	do
Meeks, Esley L	Strathcona.
McAdam, Wesley	Tamworth.
Reid, Walter E	Emerald.
Sager, Hattie	Napanee.
Hartwick James	do
MUSKOKA DISTRICT:	
Croucher, John	Huntsville.
Dierks, Caroline	Kilworthy.
Durno, Archie	Bracebridge.
Allen, George	Uffington.
Ireland, Louis	Bracebridge.
MIDDLESEX:	
Courscey, Jane Viola	Lucan.
Fishbein, Sophia	London.
Pepper, George	do
Russell, Mary Bell	Ailsa Craig.
Ryan, Charles	Biddulph.
NORFOLK:	
Boomer, Duncan	Windham Centre.
Cole, Rosa	Wilsonville.
Franklin, Sarah J	Clear Creek.
NORTHUMBERLAND:	
Bellamy, George	Wicklow.
Cummings, Bert	Brighton.
Chatten, Elizabeth	Brighton.
Rutherford, Jessie, May	Castleton.
ONTARIO:	
Boyle, Mary T	Brechin.
Kelly, James	do
Quigley, Walter T	Whitby.
Russell, Alice	Dorset.
OXFORD:	
Brown, Florence	Woodstock.
Barnard, Fred	Tilsonburg.

List of Pupils.—Continued.

COUNTIES.	P.O. ADDRESS.
OXFORD.—*Continued.*	
Cone, Benjamin D. C.	Woodstock.
Elliott, Cora	Ingersoll.
Elliott, Wilbur	do
French, Charles	Tilsonburg.
Garner, Esther	Ingersoll.
Perry, Alge Earl	Woodstock.
McFarlane, Mona	Eastwood.
Piper, Celia	Woodstock.
PEEL	
Dixon, Ethel Irene	Elmbank.
Duke, Ettie	Mono Mills.
Jones, Samuel	Palgrave.
Zimmerman, Candace	do
PERTH:	
Cathcart, Cora	St. Marys.
Harris, Carl	Mitchell.
Kraemer, Johanna	Dorking.
Orr, James P	Milverton.
Pringle, Murray Hill	Staffa.
PARRY SOUND:	
Veitch, Margaret	Spence.
Veitch, James	do
Veitch, Elizabeth	do
PRESCOTT AND RUSSELL:	
Hughes, Myrtle W.	Treadwell.
Hughes, Iva G	do
Pilon, Athanese	Rockland.
Simpson, Alexander	Piperville.
PRINCE EDWARD:	
Head, Hartley	Milford.
McCormick, May P	Picton.
PETERBORO':	
Derocher, Mary Ellen	Peterboro'
Charliebois, Walter	do
Lawson, Lila	do
Lawson, Violet	do
Kennaley, Winnifred	do
O'Brien, Gerald	do
Pilling, Gertie	do
Kirk, Norman	do
PRESCOTT AND RUSSELL:	
Forgette, Marion	S. Casselman.
Gelineau, Arthur	Pendleton.
Haney, Mabel	Canaan.
RENFREW:	
Corrigan, Rose Ann	Rocheford.
Derochie, Clara	Arnprior.
Derochie, Caroline	do
Cuddy, Edward	Brudenell.
Lacombe, Joseph	Arnprior.
Rielly, Mary	Pembroke.
Rhemus, Herman	Strathtay.
St. Louis, Elizabeth	Whitney.
Tracey, John M.	Pembroke.
SIMCOE:	
Carey, Ferguson	Orillia.
Clemenger, Ida	Banda.
Graham, Victor	do
Gannon, Ellen	Phelpston.
Monague, Augustus	Christian Isla d.
Nelson, Florence	Fair Valley.
Paddison, Thomas	Elmsdale.
Tudhope, Laura	Orillia.
Webb, Rosey Ann	Creemore.
STORMONT, DUNDAS AND GLENGARRY:	
Ford, Charles Ray	Elma.
King, Joseph	South Lancaster.
Legault, Mary	Cornwall.
Smith, Alfred	Morrisburg.

COUNTIES.	P.O. ADDRESS.
THUNDER BAY DISTRICT:	
Burk, Elsie	Port Arthur.
VICTORIA:	
Brown, Eva Jane	Valentia.
Fountain, Farley	Victoria Rd.
Fountain, Herbert M	do
Jewell, Ena	Manilla.
Rutherford, Emma	Fenelon Falls.
Sipe, Thomas	Allsaw.
WATERLOO	
Cherry, Ida Pearl	Preston.
Gardiner, Dalton	Berlin.
Hagen, William	do
Ronald, Eleanor F.	Ayr.
Roth, Edwin	New Hamburg.
Walter, John T	Hawkesville.
WELLAND:	
Tossell, Harold	Niagara Falls.
WELLINGTON:	
Billing, William E	Monticello.
Clark, Adeline R	Guelph.
Goetz, Sarah	do
Goetz, Eva	do
WENTWORTH:	
Carter, Stella	Bartonville.
Depew, Georgie	Hamilton.
Gummo, Gertrude	do
Gleadow, Norman	do
Gillam, Walter	Grimsby.
Gillam, Wilbert	do
Grobe, Emma	Preston.
Morton, Robert	Everton.
Maas, Anna M	Hamilton.
Swick, Amos A	Fruitland.
Taylor, Joseph	Dundas.
Woodley, Elizabeth	do
Salmon, Albert E	Hamilton.
YORK:	
Barclay, Helen	Toronto.
Bowman, Ellsworth H.	Aurora.
Brown, Frederick	Toronto.
Buchan, Alexander	do
Burke, Edith	do
Burke, Mabel	do
Brown, Daisy R.	do
Best, Olive	do
Cunningham, Martha	do
Curtis, Lillian	do
Cratchley, Mable G	do
Chestnut, Arlie M.	do
Edwards, Stephen	do
Elliott, George S	do
Ensminger, Robert	Markham.
Ensminger, Maggie	do
Hazlitt, William H.	Toronto.
Johnson, William J.	Swansea.
Law, Theodore	Toronto.
Lawrence, David	do
Moss, Susan, Maud	Toronto Junction
O'Neil, Ignatius David	Toronto.
O'Connor, Franklin J	Vellore.
Pinder, Clarence	Davenport.
Perry, Frederick R	Eglinton.
Lawson, Frank	Toronto.
Mason, Myrtle	do
McCaul, Alexander	do
Shannon, Annie	Weston.
Terrell, Frederick	Toronto.
Walton, Allan	Wexford.
Waters, Marion	Toronto.
West, Francis	Queensville.
Wilson, Arthur	Toronto.

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